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The Games machine

THE FUTURE IN YOUR HANDS

TX: 017 APRIL 1989

"Elite's going to be hard pushed to top FOFT - 89%"
The One (October 1988)

"Well worth thirty quid"
New Computer Express

"Well worth the £29.95 entry fee - 90%"
Popular Computing Weekly

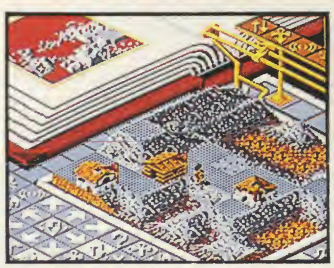


NO!

WHY FOFT MUST FLOP

Gremlin's quest for interstellar wealth – see page 43

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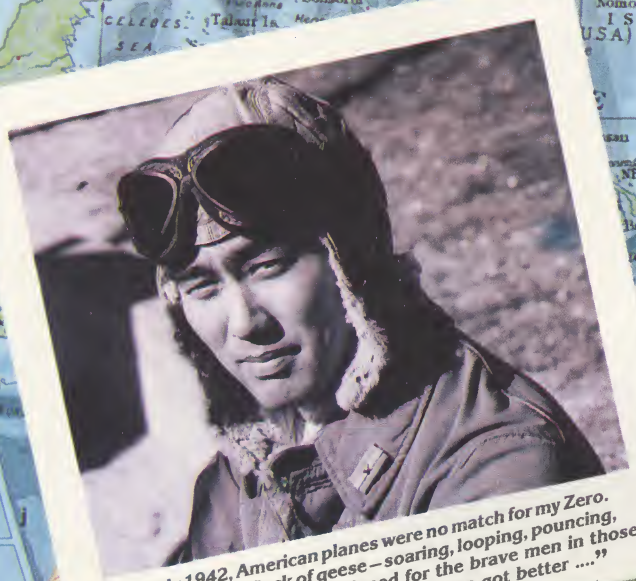
CORAL SEA, MIDWAY, SA
RELIVE THE BATTLES TH

Naval warfare changed dramatically in the first few months of the World War II Pacific theatre. Almost overnight, the balance of power shifted from the huge guns of the battleships to the torpedoes and dive bombs of the carrier-based aircraft. Now, entire battles were fought without the great fleets coming into visual range. It became clear that control of the seas – and the outcome of the war – would belong to the navy with the most effective carrier force. And at the beginning of 1942, the advantage was clearly with Japan.

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"My first burst of tracers skimmed the Val's tail. Just as I corrected my aim, he dove. I followed, and my Wildcat's cannons took his plane apart by bits and pieces. Suddenly, he pulled up and bailed through his shattered canopy. Moments later, the Val exploded ..."

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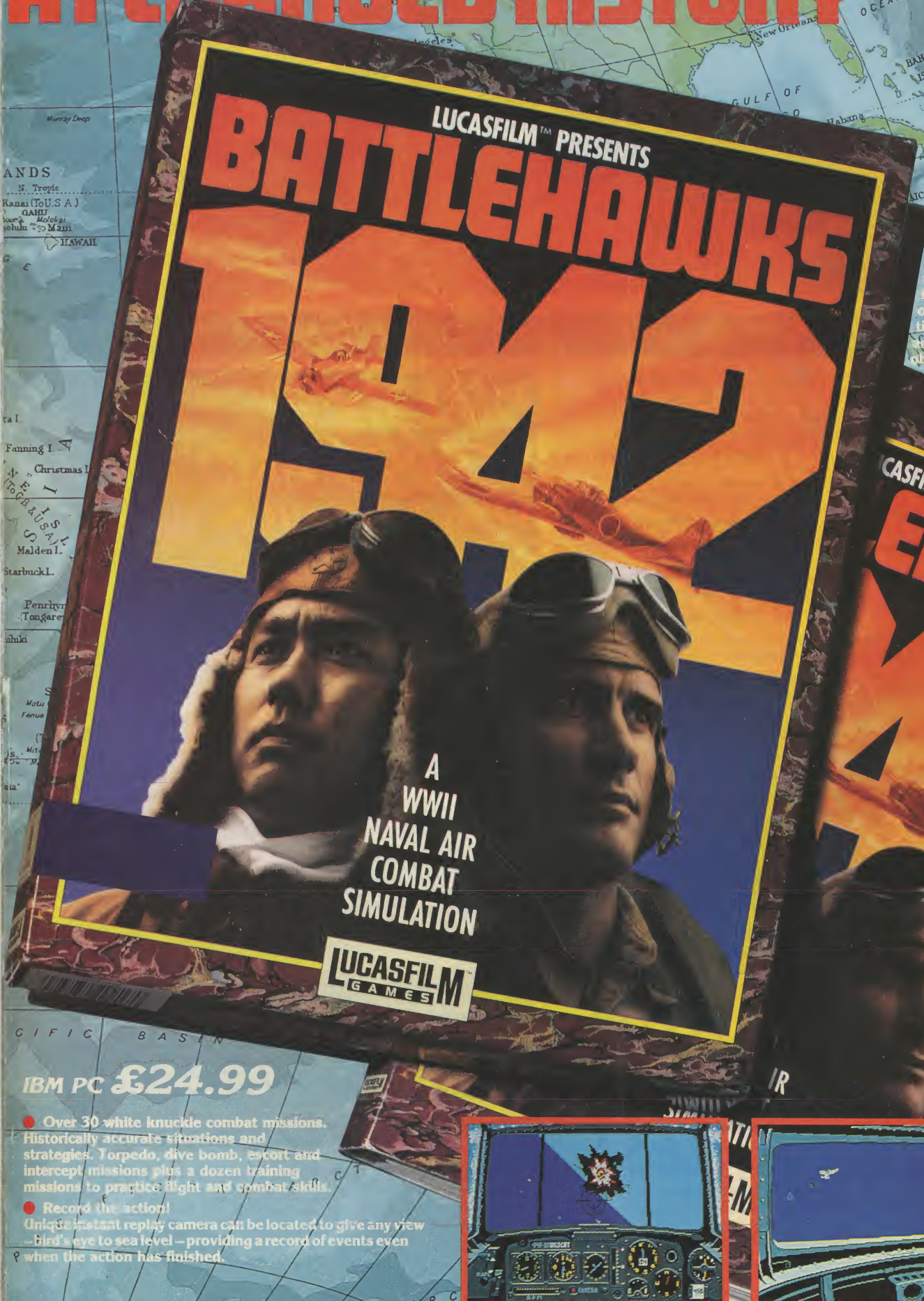


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Screen shots from IBM PC version.

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The Games machine

THIS ISSUE . . .

WIN!

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Sweet-eating Linel give away the goods, including a pound of swiss chocolate to each of the 10 runners up, and copies of *The Champ* to all winners

See page 80

WIN!

A PC ENGINE BUNDLED WITH THREE TOP ENGINE TITLES!

Courtesy of Micromedia. And if you don't win the Engine, we're giving away a Boken (that's a wooden sword to you) to the runner up!

See page 60

WIN!

DIAL 0898 555080 AND YOU COULD WIN POPULUS WITH A MODEM!



Plus other Electronic Arts titles for 8-bit owners

See page 91

WIN!

A TRIP TO ROME!

Can it be true, is CRL really giving away a holiday in Rome? Is the Pope Polish? Here's your chance to visit the city that *wasn't* built in a day. Plus 50 copies of *I Ludicrus* for the runners-up – and that's no papal bull!

See page 17

IT'S A FUNNY OLD GAME

The software industry's a funny old game, isn't it Brian? One minute your sitting quietly in your office bemoaning the fact that it's a quiet time for quality product and then, suddenly (*and* right on your editorial deadline - software houses take note!) *Populus*, *Zany Golf*, *Silkworm* and *Denaris* land on your mat.

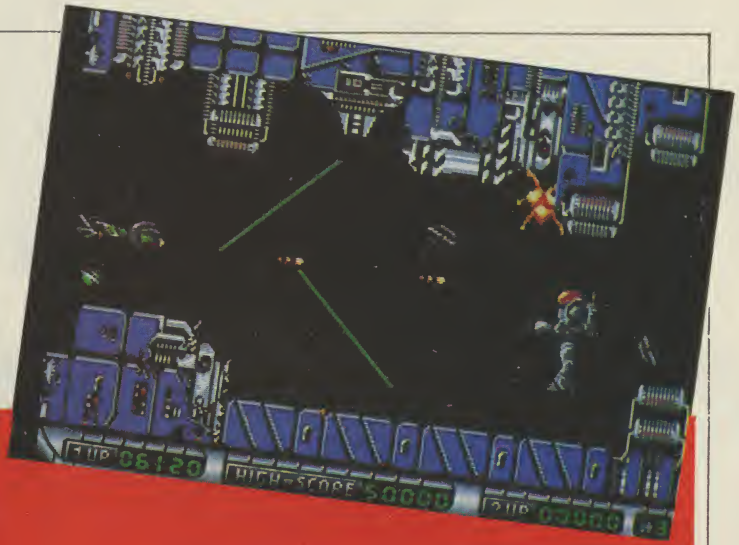
The fact of the matter is that there are always good games out there, but as we know only too well – it's not always easy to spot them through the hype. True, the post-Xmas market is depressed in anticipation of both summer and autumn release schedules, but there is always something to take you by surprise. If you're going to lay out up to £30 on a computer game, this surprise can be a nasty one if the title of your dreams turns out to be totally FOFT. TGM reviewers have been as surprised as the next man by products which haven't lived up to their pedigree or development promise, and it strikes me that, now more than ever, it's important to have as reliable a guide as possible in your hands before parting with the hard stuff. But you knew that already, didn't you?

Inside this issue on page 83 you'll find the TGM 1989 reader survey. Why not fill it in and send it off right away? There are loads of prizes up for grabs, and, just as important, it gives you a chance to shape your favourite computer magazines future – so get penning.

Rob Steel, TGM's adventure writer, has vanished into the night so we're looking for someone to replace him. If you know your north from your south and your disk drive from your bag of gold coins you might be just the person we're looking for. Turn to page 113 for application details.

Thought for the month: TGM offers more game reviews and more colour than just about any other multi-format computer games magazine. Devout readers knew that already – now go tell the heathen!

Jon Rose
Editor



REGULARS

9 TGM NEWS AND PREVIEWS
All the latest facts and gossip on the software scene, including the latest deatils on Konix games, Nintendo and Sega 16-bit, and Atari's plans for the future

23 REVIEW CATALOGUE
The mighty *Populus*, the unbearably addictive *Zany Golf* and *Pipeline*, plus Nintendo, Sega and PC Engine reviewed

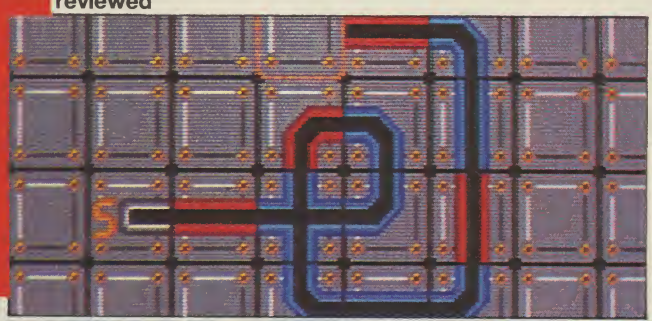
62 COIN-OP CONFRONTATION
Something different this month as Robin Hogg looks at buying second hand arcade machines (imagine sticking a full sized *Outrun* cabinet in your living room!)

65 PLAYING TIPS
Plenty of helpful scams to keep even the most hardened games player happy

77 FANTASY GAMES
John Woods reflects on the dark future of *Twilight 2000*

79 GALLERY
More winning computer graphics

93 BACK BYTES
Programming and communications features join this months regular hardware and applications guide



FEATURES

18 MICROS IN THE MUSIC STUDIO
TGM looks at the use of computers in the professional recording studio

74 HELLO, I MUST BE GOING
Mel Croucher's been sticking his nose into other people's business again – this time the question on his lips is 'why did you leave the computer industry?'

83 1989 READER SURVEY
Here's your chance to tell us what you really think about your favourite mag, and help to shape its future



THE WONDERFUL WORLD OF COMICS

PAGE 71

How do computer games emulate comic books? How do programmers view comics, and comic artists see games? TGM asked 'em – and found out!

EDITORIAL AND HEAD OFFICE *47 Gravel Hill, Ludlow, Shropshire SY8 1QS* ☎ (0584) 5851/2/3 **Editor:** Jon Rose **Features Editor:** Barnaby Page **Staff Writers:** Robin Hogg, Warren Lapworth, Robin Candy **Editorial Assistants:** Viv Vickress, Caroline Blake **Photography:** Cameron Pound, Michael Parkinson (Assistant) **Contributors:** Mel Croucher, Don Hughes, Marshal M. Rosenthal, Jason Sheldon, John Woods **PRODUCTION DEPARTMENT** *1/2 King Street, Ludlow, Shropshire SY8 1AQ* ☎ (0584) 5851/2/3 **Production Manager:** Jonathan Rignall **Senior Designer:** Wayne Allen **Reprographics Supervisor:** Matthew Uffindell **Production team:** Ian Chubb, Yvonne Priest, Melvyn Fisher, Robert Millichamp, Robert Hamilton, Tim Morris, Jenny Reddard **ADVERTISING AND ADMINISTRATION DEPARTMENTS Editorial Director:** Roger Kean **Publisher:** Geoff Grimes **Group Advertisement Director:** Roger Bennett **Advertisement Manager:** Neil Dyson **Advertisement Sales Executives:** Sarah Chapman, Lee Watkins **Assistant:** Jackie Morris ☎ (0584) 4603 or 5852 **Group Promotions Executive:** Richard Eddy **Mail order:** Carol Kinsey **Subscriptions:** Denise Roberts *PO Box 20, Ludlow, Shropshire SY8 1DB* • Typeset by **The Tortoise Shell Press**, Ludlow and on our Apple Macintosh II running Quark *Xpress 2.0*. Colour origination by **Scan Studios**, *Islington Green, London N1*. Printed in England by **Carlisle Web Offset**, *Newtown Trading Estate, Carlisle, Cumbria CA2 7NR* – a member of the BPCC Group. Distribution by **COMAG**, *Tavistock Road, West Drayton, Middlesex*.

COMPETITION RULES The Editor's decision is final in all matters relating to adjudication and while we offer prizes in good faith, believing them to be available, if something untoward happens (like a game that has been offered as a prize being scrapped) we reserve the right to substitute prizes of comparable value. We'll do our very best to dispatch prizes as soon as possible after the published closing date. Winners' names will appear in a later issue of TGM. No correspondence can be entered into regarding the competitions (unless we've written to you stating that you have won a prize and it doesn't turn up, in which case drop Viv Vickress a line at the PO Box 10 address). No person who has any relationship, no matter how remote, to anyone who works for either Newsfield or any of the companies offering prizes may enter one of our competitions. • No material may be reproduced in part or in whole without the written consent of the copyright-holders. We cannot undertake to return anything sent into TGM – including written and photographic material, hardware and software – unless it is accompanied by a suitably stamped, addressed envelope. We regret that readers' postal enquiries cannot always be answered. Unsolicited written or photographic material is welcome, and if used in the magazine is paid for at our current rates. **Colour photographic material should be 35mm transparencies wherever possible.** The views expressed in TGM are not necessarily those of the Editor. Other Newsfield publications are CRASH (Spectrum), ZZAP! (Commodore 64/Amiga), FEAR (fantasy and horror) and MOVIE – THE VIDEO MAGAZINE. Now that's *quite interesting*, but why are you reading all this when there are 111 pages to go? © **TGM Magazines Ltd 1989 A Newsfield Publication ISSN 0954-8092** **Cover design by** Oliver Frey

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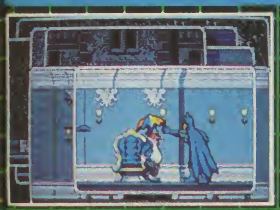
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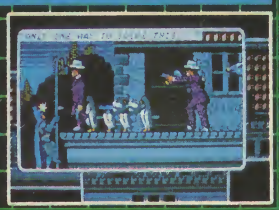
RITICAL LIST!

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PENGUIN GETS THE CHOKER!

D.C. Comics' famous super hero Batman breaks onto the micro screen in a Wham! POW! Arcade adventure as you engage the forces of evil in Gotham City. Start in the Batcave and move on through the world of fun and excitement as you face the trickiest customer of all . . . the Penguin. Save some strength for battles ahead with the dastardly Joker however, or you'll miss the thrilling climax! Cartoon style graphics and animation make for stunning realism with innovative game play for long lasting entertainment.

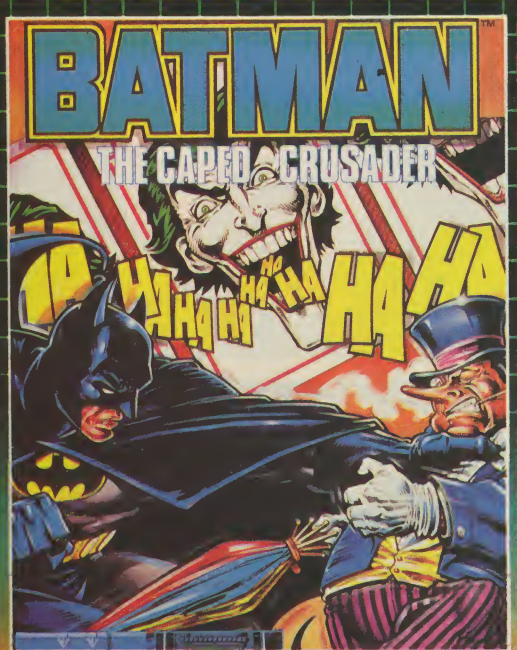
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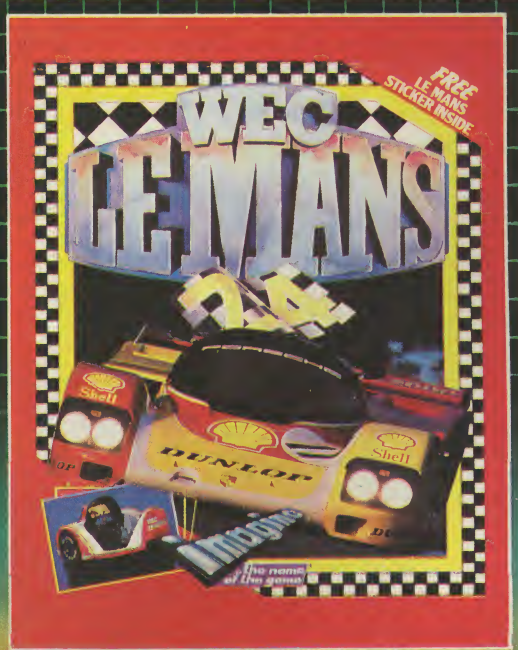






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Screen shots from Atari ST

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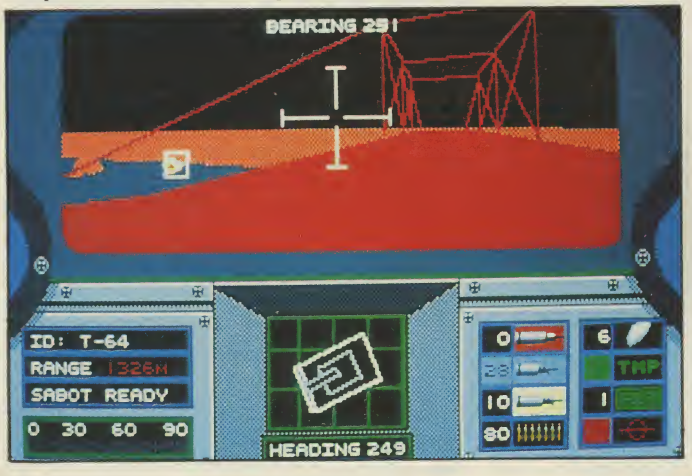
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TGM PREVIEWS

Nerves of steel

Electronic Arts plunge you straight into a 3-D World War III with *Abrams Battle Tank* – and continue their reputation for top-class PC simulators at the same time.

First-person perspective must add to the atmosphere of the sophisticated sim, which mixes strategy and combat skills in a high-tech tank complete with thermal-image night vision and a range of modern weapons.





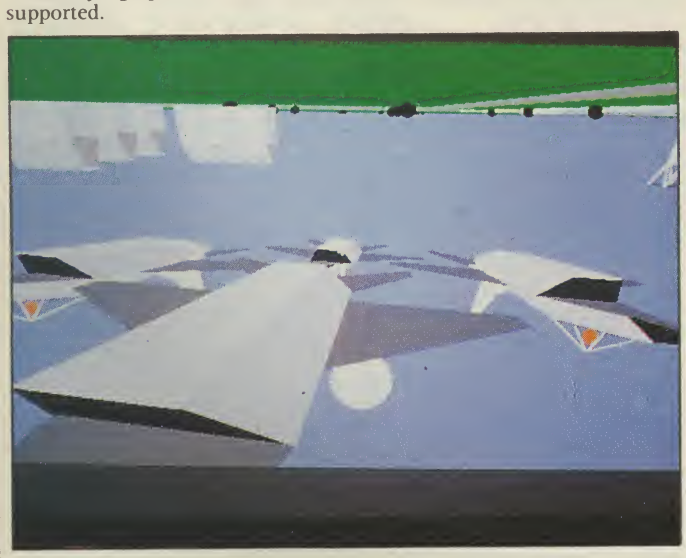
Abrams Battle Tank, which should be available now for £24.95, features eight missions from the near future, against Soviet vehicles including a top-secret FST-1 Main Battle Tank. And for the historically-minded, there's also a World War II campaign to fight in the game programmed by Dynamix.

More Chuck for your buck

A bigger, better version of *Chuck Yeager's Advanced Flight Trainer* is out from Electronic Arts – with new terrain and airports, the taped voice of Chuck himself coaching you along, and even more aircraft types bringing the total to 18. Also added are more courses for air racing, and a formation-flying section.

The simulator, for PC-compatibles only, costs £29.95 new but owners of the original can obtain *Chuck Yeager's Advanced Flight Simulator 2.0* for just £15. Simply send the serial number from the back of the original's reference card to Electronic Arts Customer Service, *Langley Business Centre, 11-49 Station Road, Langley, near Slough, Berkshire SL3 8YN* ☎ (0753) 49442.

All major graphics modes – including Hercules, VGA and Tandy – are supported.



Join the club: you'll have to if you want to get hold of Myth, the latest adventure from Magnetic Scrolls. For Official Secrets, a society of adventurers, has had it specially written – and now they're offering it free to members (on all formats except CPC, C64 tape, and Spectrum tape).

Membership, which costs £19.95 per year in Britain and £24.95 per year elsewhere in the EEC, includes six issues of an adventurers' mag, two free games, and sundry gimmicks. For further information write to Official Secrets, PO Box 847, Harlow CM21 9PH. (C64 screen.)



If first impressions are anything to go by, there could be a new force in software. Raider, a 40-level Oids-style shoot-'em-up, is the first release on new label Impressions, and it's available on the Amiga now for £19.99. An ST version should follow mid-May. (Amiga screen.)



What is it about balls anyway? First Ere International got dead scientific with the obsessive detail of Billiards Simulator (reviewed this issue), and now Firebird are coming in on cue with 3D Pool – on all formats including MSX, BBC and Archimedes!

You can take your shots from any angle, anywhere around the table, in this tournament-based sim endorsed by European pool champion Joe Barbera.

It's an Archimedes shot here, but we're assured by the Telecomsoft label that ST and Amiga will look identical. Release is set for April 18.

Tengen label launched with Vindicators

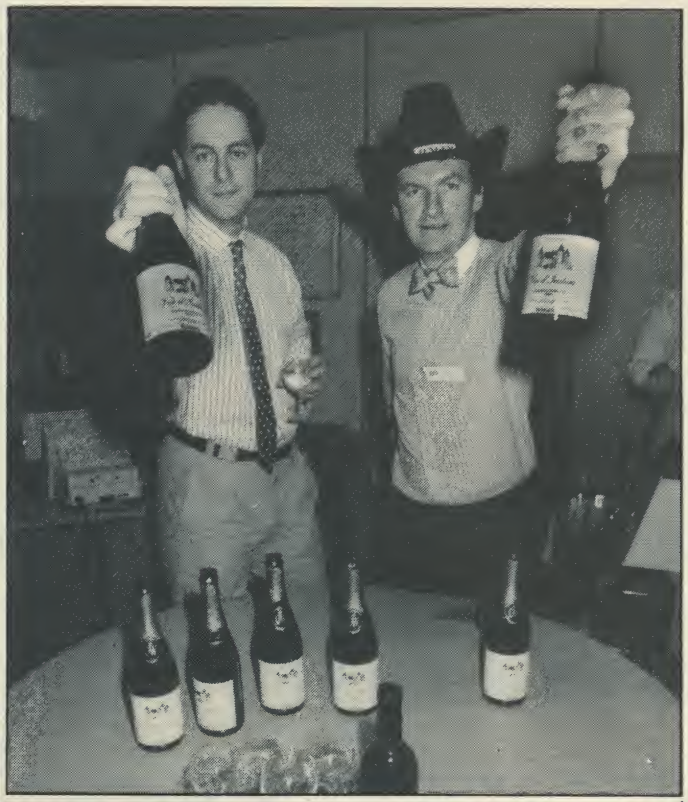
Tengen, the Domark subsidiary created at last year's PC Show to produce Atari coin-op conversions, is ready to go with its first product – *Vindicators*, based on the 3-D tank game.

Already released on ST, Amiga and the three major 8-bit formats, *Vindicators* melds strategy with action and features a virtually unique 'buy-in' option – allowing a second player to join in the space fighting at any point. A PC version will follow.

Written by Consult Computer Systems (who also did Domark's *Return Of The Jedi*, it's the first game on the Tengen label. And at least four more are promised by the end of 1992, when the contract runs out. Definitely among them will be *APB*, *Xybots*, *Dragon Spirit* and *Toobin*.

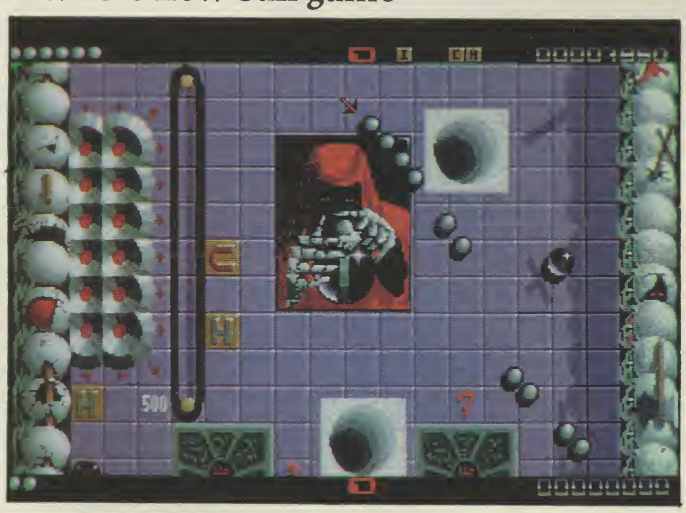


First of many from Tengen: Vindicators



Bubbling over: Domark's Dominic Wheatley (left) and Mark Strachan celebrate the Tengen launch

A whole new ball game



Imagine a game of pinball where the balls divide, go off in the wrong direction, and appear somewhere else, all at the speed of light . . . and you've got Ballistix, the 16-bit latest from Menace/Baal/Captain Fizz merchants Psyclapse.

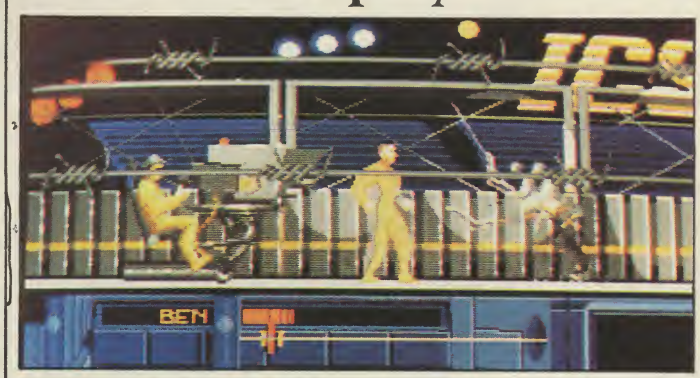
And a wide range of options let you customise the game to your own abilities, so it should take a while to exhaust this great ball of fun. Ballistix is available now for ST and Amiga.

Feeling blue?

US Gold are – because an ad for their *Arcade Muscle* comp in last month's TGM was printed in the wrong colour.

You should see it in the correct glorious flesh tones this month – but just in case the printers' gremlins strike again, let's reiterate that it's a collection of five arcade titles (*Street Fighter*, *Side Arms*, *Bionic Commando*, *Road Blasters* and *1943*). It's available on tape and disk for the big three 8-bits.

Press Run to play



Move that joystick or die: The Running Man (ST screen)

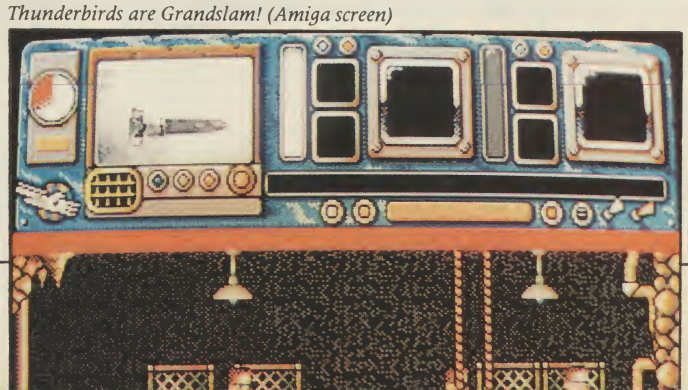
Grandslam's megalicences *Thunderbirds* and *The Running Man* are now completed, as our screenshots show.

Thunderbirds, based on the cult TV science-fiction puppet show, is dubbed a 'four-way scrolling role-playing graphic adventure', which suggests there's plenty to get to grips with as you take the Tracey family through a series of death-defying escapades.

And *The Running Man* – a licence of the Arnold Schwarzenegger movie, not the original Stephen King novel which it barely resembles – pits a lone-wolf hero against a series of savage running-dog fascist lackeys.

Both are available for all major formats, 8-bit and 16-bit; watch for reviews in the near future.

Thunderbirds are Grandslam! (Amiga screen)



It is very annoying . . .

. . . to find headlines like that. But that's nothing compared with what you'll feel playing Melbourne House's *Aaargh!* when it's released in early May. For it's pitched as a simple but addictive game (ain't they all?) which just won't let you win. Anyhow, fighting monstrous creatures and destroying cities sounds like a good way to let off steam. (C64 screen; also available for Spectrum, ST and PC.)



SEUCK slowly

Major rewrites on Outlaw's *Shoot-'Em-Up Construction Kit* (Previews, TGM**016**) have pushed the release dates back. Expect Amiga release in March or April, and ST in the summer.

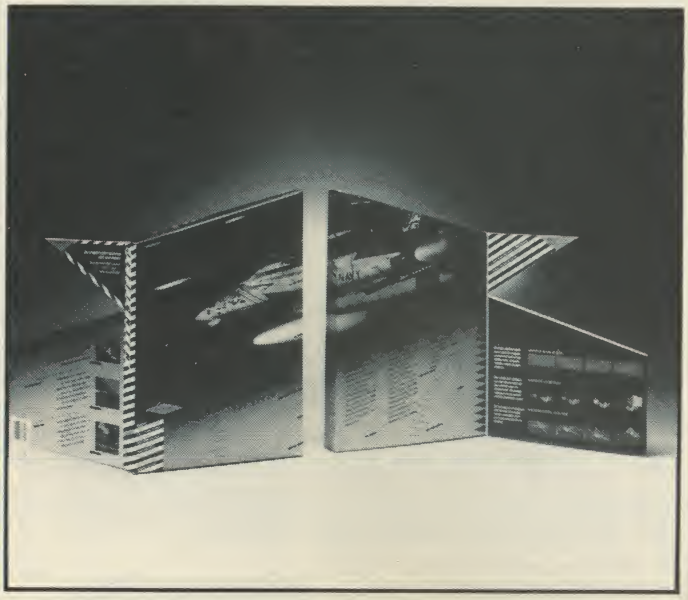
Meanwhile, Outlaw have warned that pirated copies of *SEUCK* found in Europe do *not* contain many important features, such as creating complete games. They also claim the pirate versions have a dangerous virus – you get what you don't pay for.

American pie in the sky?

London shop Software Circus has imported a new flight simulation from America's Broderbund – Jetfighter: The Adventure. At £39.95, this PC game includes over 30 missions in a wide variety of settings, three different planes, an aircraft carrier, and 'a fully digitised rendering of the State of California'!

We'd rather have the sun and oranges, but if Jetfighter will suffice contact Software Circus, The Plaza on Oxford Street, 120 Oxford Street, London W1N 9DP ☎ (01) 436-2811. 512K and EGA are required.

There'll be a review next issue.



Sega special

Virgin Mastertronic have four great-looking games lined up for the 8-bit Sega . . .

Vigilante
Beat-'em-up action on the mean streets

Altered Beast
Become a Japanese werewolf in Britain



Time Soldiers
More nonstop combat

California Games
The famous sports compendium

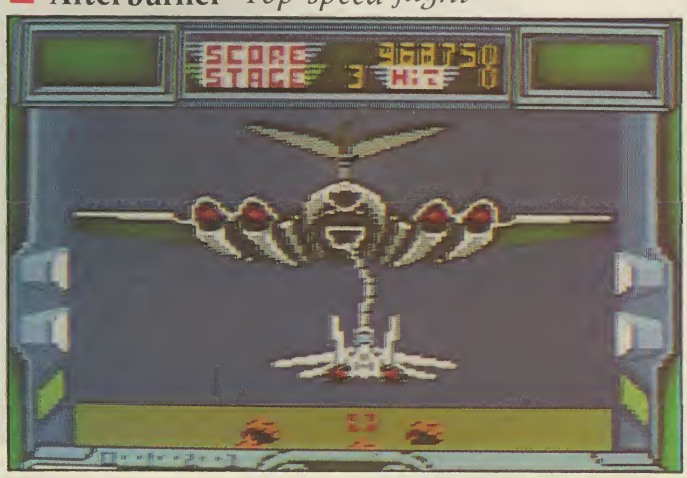
Activision action on Amiga

R-Type *end all aliens*



SDI *Real-life star wars*

Afterburner *Top-speed flight*



THE JOY OF STICKS

TGM looks at vigorous hand movement

New for Nintendo

by Marshal M Rosenthal in New York

When is a joystick not a joystick? When it's U Force. 'Now nothing comes between you and the game' is what Broderbund claim – and they're right.

Put in a game, turn on the Nintendo, grab U Force . . . no you don't! Forget about making contact with it – just move your hand across the open space in front of the black box and *BLAM*, suddenly the game is responding like you just pushed a joystick to the left.

Mike Tyson's Punchout is a great example. Actually box, throw lefts and rights and watch your onscreen character do the same. The sense of freedom is exhilarating – you really feel in control of what's going on, like you're a part of it.

Try playing *Top Gun*, leaning into the screen to bank your jet, or firing the machine guns by going 'rattity-tat-tat' with both hands.

The U Force was designed by Dave Capper, formerly of Mattel Toys. 'I hated the restrictions of a joystick,' he begins, 'so I created a device that put out a, let's call it a force field that senses your presence and what you're doing.' Capper smiles as he says this – it's obvious he isn't giving out the secret of how his device interacts with the player.

Capper's creation even includes extras for people who need the feeling of gripping something while they play. There's a set of firing handles that work just fine without forcing the player to return to the world of conventional joysticks. Also included is a T-bar for steering games – it fits into a slot on the imposing black, clamshell-like device, about the size of a small attaché case.

The U Force itself plugs into the joystick port of the Nintendo and is set up either in an upright position or folded out flat. A set of small switches is then used to configure it for the game and number of players.

It will be available in America in the early summer, and will retail for $96.95 (£55).

If the glove fits . . .

Capper left Mattel before he designed the U Force, but the giant toy firm is also making an exciting entry into Nintendo peripherals – with the Power Glove.

The Power Glove looks like something a space alien would wear, what with its control buttons and numeric pad that ride piggyback behind the knuckles and up to the wrist.

Sensors respond to the onscreen action – grab hold of an imaginary steering wheel in *Rad Racer* and zip down the road, or make Mario jump by wriggling an index finger.

Setting up requires entering a game code into the Glove's numeric pad. The manual also shows how to customise games so they react to your own, personalised hand and finger movements.

And since all Nintendo cartridges are compatible with the glove, try playing one of those old games that have been thoroughly mastered. Suddenly it's a whole new sensation.

Things will get even more handy when Mattel release their Glove Gaming series. These games will display an onscreen hand that reacts as yours does, for the kind of action a joystick can't handle.

Bad Street Brawler will be the first in the series, with more to come later.

Available in two sizes (for right hand only), the Power Glove should appear in America by late summer, and will retail for about $75 (£43).



It's a star: Croc Dundee would be proud, judging by the rave write-ups Multicoin's Star Cursor stick has been getting in Aussie computer mags.

And that's not just because the large (6-inch by 4½-inch base) microswitched joystick, just launched, is an Australian product – with four suction cups, three FIRE buttons and eight-way movement, it's also a sturdy, tough-to-break stick for serious gamesters.

It's available in Britain for £18.99 from Glasgow-based Micro Leisure.

PC flight yoke

Fancy flying with real controls? Software Circus have just the thing – the £79.95 Cessna-style MAXX yoke for PCs, complete with 60° movement, push/pull movement, two FIRE/control buttons, and a slide throttle to control speed.

The sturdy nylon yoke is clamped onto the table in front of the computer, and plugs in like a joystick (so it needs a games card to run).

Compatible software includes *Flight Simulator 3*, *Gunship*, *Test Drive*, *Silent Service*, *Falcon AT*, *F-19 Stealth Fighter*, *Chuck Yeager's Advanced Flight Trainer*, and *Jetfighter* (a Broderbund simulator also imported from America by Software Circus).

Software Circus: *The Plaza on Oxford Street, 120 Oxford Street, London W1N 9DP* ☎ (01) 436-2811.

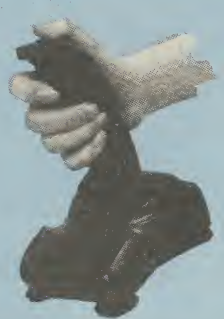


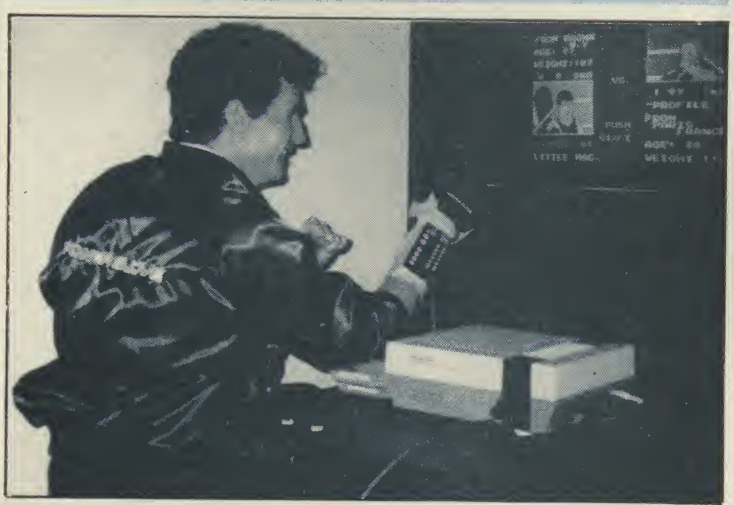
Don't touch: U Force inventor Dave Capper

Take your life in your hands with the pistol-style grip of De Game Marketing's Quick Joy Supercharger, a cheap (£12.95) eight-directional stick with suction pads, two FIRES and an AUTOFIRE.

The microswitched stick also features an unusual CPC selection button, allowing autofire on the Amstrad 8-bit micro.

Apparently the first of many Quick Joy sticks, it's available from retailers or De Gale Marketing, 81 Tottenham Court Road, London W1A 1EY ☎ (01) 637-5735 or (01) 631-1189.





Heavy Mattel: punching with the Power Glove

PC joy

The art and Kraft of US joysticks reaches Britain with the Kraft Premium II and III, both imported by much-written-about stick/console firm Konix.

Both feature dual FIRE buttons and a choice of resilience, between 'free float' and a spring pushing the stick back to the centre.

In fact, there's little difference – but the £29.99 Premium III has a third FIRE button. The Premium II is £24.99.

Konix also sell a games card, essential for joysticks to control the PC. The Twin Port Interface, compatible with all PC sticks, costs £19.99 – but there's a ten quid reduction if you buy it with a Konix joystick.

Konix: *Unit 35, Rassau Industrial Estate, Ebbw Vale, Gwent NP3 5SD* ☎ (0495) 350101.

A tale of two Ataris

Lawsuit update and exclusive interview . . .

by Marshal M Rosenthal in New York

Everybody's curious about Atari these days. Talk of lawsuits against Nintendo, new gaming machines – does anyone know what's going on? First, let's get our companies straight. Tengen, a former licensee of the Nintendo Entertainment System, is a division of Atari Games (who produce the arcade games). They are not a part of the Atari Corporation that makes the ST or any of the gaming systems, and they don't make any software for these systems either.

Now Tengen are involved in a lawsuit with Nintendo (TGM**015**). Since Nintendo control all the licences to produce games for their console, it means that the big N decides who can do what, when, and in what quantity. Besides, they manufacture the cartridges and ship them to the companies who will sell them – Nintendo hedge their bets by having a special chip in the system that locks out any cartridge not officially sanctioned.

Tengen took umbrage at this, and decided to make cartridges that would bypass the chip – thus no longer paying Nintendo and disturbing the status quo. Tengen cited a US law called the Antitrust Act, which prevents a company from creating a monopoly and inhibiting free trade.

The law was first used to break the railroad monopolies, and it worked back then – but they didn't have the big N to contend with, and now Nintendo are countersuing Tengen. Don't hold you breath on this one, because it might take ten years before the smoke clears – which is how long it took Polaroid to force Kodak out of the instant-print and camera market.

The word out on the street here is that a long and bloody legal battle lies ahead. The two parties might come to a compromise, but when or what will be the results is completely up in the air.

Practical Katz

It may seem a letdown, but none of the above has anything to do with the Atari Corporation (though Atari have participated in a few lawsuits themselves . . .). TGM caught Michael Katz, President of Atari's Gaming Division, during the recent New York Toy Fair.

In between his TV interviews, he acknowledged to us the boost that Nintendo gave to the video-game industry in 1985. But Katz remarks that Nintendo is definitely not the only game in town, and that a whole new generation of young game fans are looking toward Atari.

'We came out with 30-40 titles during '87 and '88,' notes Katz, 'and there will be over 50 games for our 2600, 7800, and XE systems this year, featuring plenty of hot new titles.' Katz charmingly manages to avoid committing himself when asked about the rumours of a mysterious new games machine, but he does stress that it will have great graphics and sound, and should appear in the States before the end of 1989.

Pressed a bit more, he concedes that it will not be 8-bit technology, nor compatible with any of the existing systems. Could this be the keyboardless ST console (TGM**014**)?

■ Finally, so we shouldn't feel cheated by all the secrecy – a bit of a hidden feature on the new 2600 games. They've all been designed with a hardware pause which can be used by flipping the switch from colour to black-and-white. Remember, you heard it here first.

■ *Marshal M Rosenthal is TGM's US correspondent.*



Katz: hinting at ST console

Smarty-pants

Atari Corporation, the ST manufacturers, launched the first-ever 'pocket PC' at February's *Which Computer?* show in Birmingham. On sale this summer at £200, the tiny PC-compatible (called the Folio Pocket PC) has won the race to be first in the world's trousers, as rival Californian firm Poquet is also putting the finishing touches on a machine.

Mirrorsoft trumpet CD-ROM



'Dungeon Master would be fantastic with audio' says Mirrorsoft Chairman Jim Mackonochie, already looking beyond his firm's CD-ROM version of Defender Of The Crown – the first game ever on the new medium.

And it's only audio that they've added to Cinemaware's adventure, in an experiment to show what CD-quality music and voice effects can add to a game.

'We can now start thinking about having help files which are spoken,' observes Mackonochie – let's just hope they're not in the curious Australian/New Zealand/rural England accent that language experts said Defender Of The Crown should use for authentic medieval voices.

Originally released in 1986, Defender Of The Crown will appear on CD-ROM for PC-compatibles in a tiny run of just 200 copies to test the waters.

■ *CD-ROM: a step in the wrong direction? See Controversy, page 112.*

Another fine UMS

US Gold have lost a fight for the rights to *UMS II* – and now they're saying MicroProse paid too much for it.

US Gold's SSI label announced recently that they'd be publishing the sequel to Rainbird's strategy classic *UMS* (TGM**016**), even though they hadn't actually signed a contract.

According to SSI's Bob Malin, a verbal agreement had been made – but then Intergalactic Development, the game's US programmers, 'didn't seem to understand all the terms and conditions'.

And Malin told TGM that after a contract was posted to Intergalactic's US agent, 'we got a letter saying another company was offering more money, and it became an auction situation. *But we'd offered what we thought it was worth.*'

Now MicroProse will publish *UMS II: Nations At War* on all 16-bit machines (including Apple II GS and Mac) in August.

Changing point of view: The Beatles certainly didn't send Apple Computer a Valentine, judging by their decidedly unhippylike reaction to the Mac manufacturer's logo.

For George Harrison, Paul McCartney, Ringo Starr, and the estate of the late John Lennon are getting, like, really **uptight**, man, over Apple Computer's use of the half-eaten fruit symbol – they're saying it's been the trademark of their company Apple Corps since 1967.

The dispute, which is leading both parties inexorably to court, arose particularly over Apple Computer's use of the logo on a MIDI interface. Presumably The Beatles will argue that this might lead buyers to believe the music product had been endorsed by them.

Indeed, The Beatles allege that Apple Computer had agreed almost ten years ago to use an orange instead?!?!?!?!

Meanwhile, as April 1 approaches, Ariolasoft (remember them?) are apparently launching a £100m bid to gain exclusive use of the term 'Gerry and the Pacemakers', because their product is German and weak.

THE RIS

A new generation of Japanese consoles is coming to life, with both Nintendo and Sega determined that their 16-bit offspring will survive. TGM reports on the beginning of an era.

Nintendo: heir to an empire

by Shintaro Kanaoya

At last, after months of speculation and rumours, Nintendo's 16-bit Super Famicom (Family Computer) has made an appearance. On November 21 last year, Nintendo showed the machine to magazines, companies and software firms, and they gazed upon the promised computer.

The provisional release date in Japan is July, but it could be delayed till September or October. A UK release date of 1990 has been mentioned, but this seems very much up in the air – Nintendo have to protect their own Japanese market from Sega's Mega Drive and NEC's PC Engine before they start worrying about Europe.

The price has not yet been decided, either, though Nintendo's aim must be to undercut the Mega Drive, which retails for 21,000 yen (£90). Not bad for a machine which one source claims could, on the merits of its hardware, not look out of place with a 40,000-50,000 yen price tag (£180-£245). And looking at its hardware, it's not surprising to see why.

Graphically it could almost make an Amiga blush: it has eight graphical modes combining different resolutions and number of colours onscreen. The maximum resolution is a hefty 512x448 – that's with only 16 colours onscreen, but the total palette is 32,768, with up to 256 onscreen in low resolutions.

Its range of built-in utilities includes rotation so quick that a camera shutter speed of 1/15 second produces a very blurred picture, horizontal and vertical stretches, scrolling of a portion of the screen only, fade-ins and fade-outs, four-layer scrolling, windows and more.

Whereas the 8-bit Nintendo (also called Famicom) had a maximum sprite size of 8x8, the Super Famicom has a maximum of 64x64 – and there can be up to 32 on one line without glitches, compared to just eight on the Famicom *ordinaire*. The maximum number of sprites onscreen is 128, Nintendo 64.

So the 8-bit Nintendo is outclassed in the graphics field – but how badly is it beaten in sound?

The Super Famicom can digitise sound and play eight sounds simultaneously. Once sounds are digitised, it can replay them with echo, volume and countless other weird and wonderful things which would make it ideal for use with music software. The machine also can 'position' sound in any of 16 different places, and there's an earphone socket with volume control (as on the Sega Mega Drive).

In short, in the audiovisual departments, the Super Famicom is possible even more impressive than the PC Engine, CD-ROM or not.

Winning games

Two of the four games released simultaneously with the machine – *Super Mario Brothers 4* and *Legend Of Zelda 3* – are almost guaranteed instantaneous success, because the originals were phenomenal hits on the 8-bit Nintendo.

But the sample game shown at the 16-bit machine's launch was *Dragon Fly*, a flight simulation. To give an example of how impressive it was, it was said to have surpassed the PC 9800 series's *Flight Simulator II*.

The new Famicom itself is bigger than its 8-bit elder brother in every dimension: the cartridge size, the controller size and the machine size itself. The controller is the rocker switch, but with six FIRE buttons: four on the flat of the controller, and tow on top where the fingers neatly fit.

As Sega are doing with the Mega Drive, Nintendo are launching a Famicom adaptor, which will run the extensive range of 8-bit titles on the 16-bit console. (But whether this will sell, as there are already millions of homes possessing a basic Famicom, has yet to be seen.)

All in all, the Nintendo Super Famicom looks set to bury Sega again, but probably not as deep as the 8-bit Nintendo did. The machine is very impressive obviously, but its late arrival may not give it the dominance in the 16-bit field that Nintendo enjoyed with 8-bits. And as always only the public, time, and TGM will tell.

■*Shintaro Kanaoya keeps an eye on Japan for TGM.*

及三兒日書



Super sound and vision: the Nintendo Super Famicom

SING SONS

Sega: here now

by Phil Harrison
in Tokyo

Atari paved the way to the computer game markets in the late Seventies with their VCS system, but since then one console has reigned supreme in this highly lucrative world – Nintendo. The domination of this 100-year-old company's 8-bit Famicom in Japan is only too easy to see, as huge numbers of games have an equally large number of customers to purchase them.

Backed up by innovative add-ons, the Nintendo has dominated – but the one black mark against it is the now-aging technology used internally. The machine uses a similar 8-bit processor to the crusty old C64 (first built in 1981), and the supporting chips are equally prehistoric.

Indeed, the latest technology available has yet to be put to good use by a dedicated games computer – with one exception. Sega's new console, the Mega Drive, uses a powerful combination of 16-bit and Z80 (8-bit) processors.

Unlike the 16-bit Nintendo it is *already available* in Japan, could easily be imported, and looks set for a UK launch in 1989 or 1990 anyway – though Sega in Japan are saying nothing.

Smarter than the average

Available only since late 1988 in Japan, the Mega Drive has a sleek and ergonomic look – it's a much prettier machine than the Nintendo or Sega's earlier Master System.

The machine is moulded out of textured black plastic, with a cartridge slot surrounded by a raised circular 'bubble' which gives it the look of a portable CD player - probably a move to draw sales away from the popular PC Engine's CD-ROM player.

The light, rather flimsy-feeling console has a sliding control for volume output through a headphone socket, a RESET button and a mechanical cartridge lock that doubles as the ON/OFF switch.

The one hand controller that comes with the machine is the now-standard flat controller found with all the Japanese consoles. There's a rocker pad, three TRIGGER (fire) buttons and a START/SELECT button. Reacting well to vigorous playing, it makes diagonals easy to reach and fast.

And it's plugged in via an apparently standard D-type connector, which makes connecting existing joysticks and other add-ons a possibility.

A second controller can be bought separately and plugged in; many games have an automatic sensor that only gives the opportunity for two-player games when the second controller is there.

Output to the TV is through separate audio and video leads, and of course the picture is NTSC (Japan's display standard) – so if an import is used in the UK it will need an adapter (like the unit supplied with most Amigas).



Upgraded beast: Sega's Mega Drive

Handheld coin-ops

I played three games – *Altered Beast*, *Super Thunder Blade* and *Space Harrier II*. They're all arcade conversions on the Sega label, they were developed at the same time as the console, and they are its first software ever.

They're on cartridge format, and slot home with little effort, though it's worrying that the cartridge could be inserted the wrong way into the machine – and the power turned on. (The mechanical lock merely prevents the cartridge from being removed during play.)

The *Altered Beast* coin-op hasn't been seen in Britain much, though Mediagenic already have the rights for a conversion. It's a sideways-scrolling beat-'em-up and shoot-'em-up, where the player's butch main character tackles an evil spirit through several fantasy levels.

The game starts with a nice example of the speech capabilities of the

machine – the words 'rise from your grave' would startle the player out of his chair if they didn't sound so much like Elmer Fudd!

As the player picks up icons, his sprite gets visibly stronger and more muscly, till he eventually changes into a beast (a werewolf on the first level, a weredragon on the second, etc).

End-of-level nasties include a huge man that soars out of a grave and starts chucking his head at you – after doing a Fuddesque 'welcome to your doom'! This is most impressive and very accurate to the arcade original.

On the second level there's a huge globular eyelid that opens to reveal a hundred squirming eyes that drift out across the screen, and weirder creatures appear in the third level's rocky cavern, which makes extensive use of 3-D masking to obscure the player behind rocks etc.

There's also a two-player option.

Great space race

Space Harrier II, quite similar to the original, uses a beautifully smooth chequered floor and very realistic 3-D effect – as good as the arcade ever was. The rapidly-spinning targets are impressive too, especially the end-of-level monsters, though the player's main character could have done with a few more animations (like many sprites in Japanese games. The form and detail are there, but a few 'frames' are missing, giving jerky effects).

The exhilaration of whizzing between pillars has to be felt to be believed – screenshots don't do justice to the smoothness and speed of the animation, which gives an indication of the Mega Drive's real power.

Super Thunder Blade is the most disappointing of the lot. It should have been called *Normal Thunder Blade With Dodgy Graphics*, since all Sega seem to have done is revamped the coin-op with a new scenario and slightly substandard graphics.

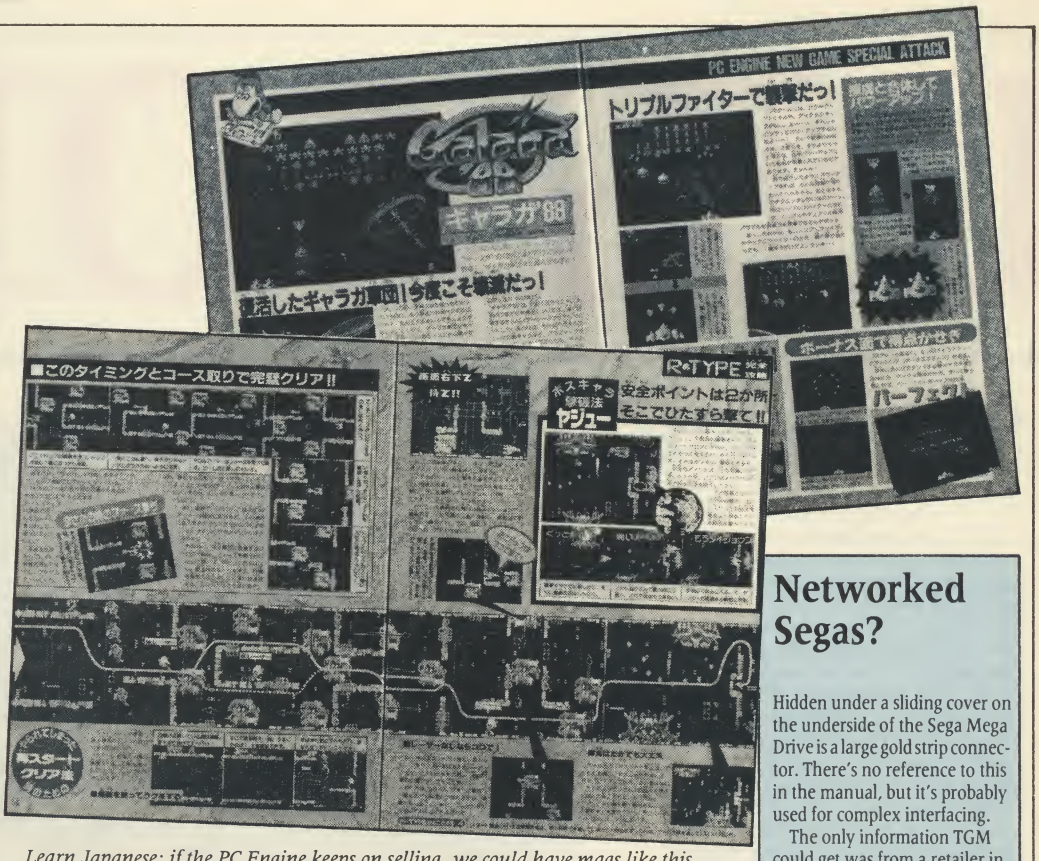
To be fair, the aircraft are fine, but the wobbly buildings and skyscrapers let it down. It's also frustratingly hard, with invisible missiles coming from nowhere to knock you out of the sky.

The sophisticated presentation of all three games – music, option screens, etc – bodes well for other Mega Drive software, which will include *Powerdrift* and a rather cutesy but very impressive TV-advertised game called *Alex Kid*. (It's a cross between *Wonder Boy* and *Super Mario Bros.*)

The reaction of other Japanese developers was positive, with even Namco – a major developer of profitable Nintendo software – saying they felt it was powerful and should go far with the backing of good games. Mind you, their future with Nintendo has looked shaky every since Namco's 'other half', Atari Games Corp, sued Nintendo for $100 million (TGM**015**)!

We wouldn't be surprised to see developers flocking to get a look-in on the Mega Drive, but it will need to get established quickly, before 16-bit Nintendo arrives. This will be a fierce, bloody battle.

■ *Phil Harrison is a freelance games designer currently working for Vivid Image Developments. He lives more in Hertfordshire than in Tokyo, and hates sushi and the little glasses of swimming-pool water you get given with every meal.*



Learn Japanese: if the PC Engine keeps on selling, we could have mags like this

Konix software riding high

Eleven software houses have already agreed to produce software for the Konix Multi-System, the company says. Electronic Arts, US Gold, Ocean, Mirrorsoft, System 3, Palace, Thalamus, Llamasoft, Logotron, Electrocoin and Linel are all in on the game, and Konix will be running its own label too, with ex-Activision man Jon Dean at the top.

'I can't wait to get in there and start blasting,' said Llamasoft's characteristically ebullient Jeff Minter, though a few software houses have expressed doubts – or, more likely, doubts about supporting consoles when they've got so much invested in home computers,

15 games should appear when the console is released in August, and a further 25 by Christmas. All will cost £14.99.

The colour picture shows Konix's hydraulic chair, a Multi-System peripheral, on display at the recent British International Toy & Hobby Fair in Earls Court, London – while in the black-and-white pic, programmers and software supremos gather round as Konix founder Wyn Holloway tries out the chair. News of the console was first reported by TGM last autumn.

■ A couple of misprints in last month's report may have confused the issue of the Multi-System's price. It will retail for £199.



Networked Segas?

Hidden under a sliding cover on the underside of the Sega Mega Drive is a large gold strip connector. There's no reference to this in the manual, but it's probably used for complex interfacing.

The only information TGM could get was from a retailer in Tokyo, who suggested it was for interactive networking of machines – most likely for Japan's hugely-popular cartoon RPGs.

PC Engine on a victory run

British shops are ordering up to 500 PC Engines apiece from sole UK distributor Micromedia, according to the firm's manager Andrew Smales. 'I've had about 100 shops ring me up so far and they all want to sell it,' he says – observing that the first 1,000 he's importing from Japan won't last long.

Outlets like the chain Software Plus, Shekana on London's Tottenham Court Road, Telegames in Leicester and Supervision in Nottingham are now taking the paperback-sized Japanese console, which TGM first revealed last year (TGM**008**).

But the British will have a long slog to catch up with Japan, where the PC Engine and its 62 software titles are among the most popular console purchases. That may be partly explained by the low price – Japanese shops sell it for £110 to £130, while Micromedia's rate is £289.95 for the machine plus £159.95 for a TV interface.

There seems little hope of that price coming down, because NEC have no plans to sell the Engine in Britain themselves yet: America is their next target, starting this summer.

WIN A ROMAN HOLIDAY WITH CRL AND 'I LUDICRUS'

All roads lead to Rome, but unless you happen to live in Italy it can be a pretty long hitch. So CRL have recreated the splendour that was Rome – or at least the idiocy that was its gladiators, in the swordplay spoof *I Ludicrus*. Now available on ST and soon to be on Amiga and 8-bits, it's reviewed this issue.

But for Italophiles who'd like to get a little closer to the real thing, CRL are also offering a **trip to Rome for two** worth approximately £500, plus **ten copies** of the game for runners-up!

The trip includes a return flight to Italy's historic capital – an amazing city where the well-preserved monuments of ancient Rome form a backdrop to the hustle and bustle of modern cosmopolitan life – and two nights in a hotel. (You'll fly out Friday afternoon and return on Sunday; when you win the comp, CRL will be in touch to fix the exact dates.)

And the good news is that to conquer Rome you don't have to go to so much trouble as the Goths. Just answer our five Roman questions, send them in by the closing date, and your name goes into the prize draw . . .

1) What is the name of the river running through central Rome?

2) Which twins founded Rome, according to myth?

3) Where in Rome does the Pope live?

4) Ancient Romans occasionally fed Christians to what animal?

5) A Frank Sinatra detective character had the surname 'Rome'. What was his first name?

Send your answers on a postcard or the back of a sealed envelope to **AM I LUDICRUS OR DID I WIN? COMP, TGM, *PO Box 10, Ludlow, Shropshire SY8 1DB***, to arrive by **April 20**. Usual rules as printed on the contents page apply.



The gods must be crazy: gladiatorial guffaws in CRL's* I Ludicrus *(ST screen; see reviews this issue)

Overseas readers please note: the flight included in the first prize can be taken from any major airport in the British Isles or continental Europe. Readers from Rome are welcome to enter this competition if they enjoy sitting around in airport lounges without getting anywhere.

AND THERE'S MORE . . .

To help the first-prize winner find their way through the broad, sweeping streets and ancient alleys of Rome, TGM is throwing in a free copy of the magnificent Insight City Guide to Rome.

Recently published in full colour by Harrap Columbus, it looks at the old and the new side by side, taking you through each area and aspect of Roman life – even 'the most beautiful and stylish McDonalds in the world'!

And a supplement at the end of the 281-page book gives practical details on life, food and entertainment in the great city.



LEFT TO HIS OWN DEVICES

Micro music doesn't **stop** at the MIDI port, as Robin Hancock knows well. For Hancock, a top engineer at recording studio Sarm West, uses home computers as well as **state-of-the-art** music tech for work like his recent Pet Shop Boys remix. Robin Candy reports on the man and the machines.

It's easy to plot the rise of computers in the music industry. The increase in disco and electrobop records over the last ten years is attributable to synthesizers and sequencers with their own microprocessors. But perhaps the most important use of computers in the music industry is in recording and mixing.

In 1983, Trevor Horn and Jill Sinclair transformed Island Records' Basing Street Studios into Sarm West – now regarded as one of the world's top recording studios. Frankie Goes To Hollywood, Bros, Marc Almond and the Pet Shop Boys are among the many chart-topping acts that have recorded there. In fact, Sarm West houses four studios in one complex: Studio 1, with its large studio area, is where Band Aid recorded *Do They Know It's Christmas?*.

As is often the case in a high-profile industry, it's the people behind the 'stars' – in this case the producers and the engineers – who play a crucial role in that stardom. When artists enter a recording studio, their future success depends very much on the producer and the engineer.

An artist can get very involved with his own material, and may not see which parts of a song do and don't work. The producer provides an outside opinion and tries to guide the music in what he feels is the right direction.

Meanwhile, an engineer's job can be divided into two categories: recording and mixing a song. In the recording process, his job is to commit sound from the instruments to tape in the best way he can. The essence of mixing is to get the sound levels between each track properly balanced. An artist is very dependent on the engineer during mixing, since the final sound is often determined by how the engineer sees the song working.

Robin Hancock is one of Sarm's in-house engineers. His engineering credits include Simple Minds, Act and Marc Almond; one of his most recent pieces was the Pet Shop Boys' 12-inch disco remix of *Left To My Own Devices*. An expert on the Synclavier and Fairlight systems, Hancock works with computers every day.

'Most pop music has some programmed aspect to it – even if it has live drums, they're probably played to a click generated by a computer. Computers increase the options available to the producer and engineer. For example, a drummer would go out and play his part. Other than tell him which bits to do again, you have very

little control over that part of a song.

'With programmed drum sequences you can go through every single snare beat and alter its velocity. You can make things sound incredibly real. However, the downfall of programming is that it takes so long.'

Voice to vinyl

The time it takes to record a song can vary considerably. A live band goes into the studio area and sets up in separate booths, which are often designed with particular acoustics in mind. The engineer then decides which microphones are to be used and his assistant sets it all up. The band then performs the song which they've – ideally! – rehearsed.

This gives the producer and engineer a guide to what the song sounds like. Then the vocals and each instrument will be rerecorded individually.

'A band that can play well may take a day or two to record the main elements of a song,' explains Hancock, 'while a song where the producer has to create the backing track himself using session musicians can take months. *Slave To The Rhythm* took nine months to complete, but that was originally intended to be a single and was gradually worked into an album.

'Home computers have made a big difference to recording studios. We actually use PCs to control some of the sequencers and drum machines.

'A band can complete a lot of their preproduction work before entering the studio, particularly if a lot of their stuff is sequenced. You can control all the sequencers from one time source and run them live till you're ready to record. All you have to do then is overdub any live material such as the vocals. Studio time costs money, so it makes sense to get as much of your song as possible completed before entering the studio.'

All mixing and recording is controlled from the studio control room. Probably the most important piece of equipment here is the mixing desk, which usually consists of a series of 24 or 48 faders which control the volume levels of each individual track. Above each of these is an additional set of controls including equalisation, noise reduction, and filter controls.

'Using the studio equipment, we can improve the quality of even quite poorly-recorded sound. We can improve a singer's voice extensively. For instance, deessers [pronounced 'dee-S-ers'[remove hissing Ss from a vocal. We usually let the singer do lots of tracks of singing. We then compile the best bits from each take onto another track.

'You have to make sure that all breaths are just right, especially with CD, where you can easily hear everything going on. We use different monitor systems to simulate a car stereo or a home hi-fi. When we're doing a 7-inch single mix, we quite often listen to it on a mono system with radio and TV in mind. A lot of singles get sold on how much airplay they get, so it's kind of critical that they come across well on radio.

'If we're doing a 12-inch mix, we try to simulate a nightclub or disco which may have a decent sound system. But we don't use high-fidelity speakers:

SOUND LOGIC

Secrets of the mixing desk

At the heart of the recording and mixing process is the mixing desk. Sarm West, like most of the world's top recording studios, use Solid State Logic Primary and Total Recall Studio Systems and computers for recording and mixing.

Each part of a song, such as the bass line or the snare drum, is recorded onto tape on a separate track. These tracks are then layered on top of each other to create the finished song.

The mixing console allows the engineer to move faders and controls, and thus alter many aspects of each track – things like dynamics, echo and volume. The bulk of the mixing desk is taken up with these controls, but though the desk looks daunting it's designed for ease of use.

A fader can be set to any of three mix statuses. When it's set to 'absolute' the studio computer records the engineer's exact movements of the fader and all the controls associated with it.

If the engineer is completely unhappy with the mix it can be scrapped, and the computer will roll the tape back and wait till the engineer is ready to try again. But if there are just a few mistakes, the engineer can roll the tape back and revise those parts of the mix which are wrong.

Without the computer to record the engineer's fader movements all the faders would have to be moved live when the engineer was ready to commit the mix to tape. And with 48 tracks this would require several people around the desk at the same time, synchronising their movements – making errors highly likely.

In 'trim' mode, previously-stored fader movements are updated by moving the fader to trim their previous value either upward or downward. If the fader isn't moved, the previous movements are left unaltered. The final mode is 'isolate'. Here a fader is used to monitor a track, but the computer doesn't record its movements.



Computer power

The Solid State Logic Studio Computer increases the flexibility of the mixing console. The computer command module consists of a QWERTY keyboard along with 33 specialist keys with a single word engraved on each – SEQUENCE, PLAY and EXECUTE. The engineer can construct sentences to tell the computer what to do, with just a few keystrokes.

The Primary computer controls the multitrack tape machine, providing rapid location facilities. All songs are stored on tape with a start and finish time. The computer can then be instructed to GO TO, PLAY or CYCLE between any locations by keying in the timecodes. A song can be further divided into sections, which the engineer can cycle while he perfects the mix.

When a song is remixed for a 12-inch record, nothing is 'played' in the ordinary sense of the word. The engineer, using the computer, juggles the tracks around, repeating some sections and arranging the song into a different order. In some cases additional material is added to the mix: this is called a drop-in. The engineer specifies the start and finish point of the drop-in, and the computer patches in an effect between those times.

One of the main features of the Solid State Logic mixing desks is the Total Recall system. The computer scans every control on the desk and saves their settings in the song's Setup List.

When the piece is next worked on the engineer can call up the Setup List – the computer then scans the desk and compares the settings to those on the Setup List. The results are shown on the monitor. The engineer can now reconfigure the desk to the settings used on the original song.

PRESS ANY KEY



the bass on our speakers distorts as you drive them quite hard, which gives you a good indication of an average hi-fi.'

Producers and engineers must draw inspiration from somewhere. Sometimes the music itself can throw up unexpected ideas. Sometimes the combination of band, producer and engineer is very productive, but the industry is noted for its copycats.

Hancock explains: 'I listen to a lot of music. Whatever your background in this business, you have to be aware of what's going on in the music scene. I don't listen to to other people's music specifically for ideas, but sometimes I listen and think 'yeah that's good' and rush home and jot it down or sing it into a tape recorder.

'But there's an awful lot of plagiarising going on, particularly in pop music. Stock, Aitken and Waterman are, in a way, the worst for that. They are quite happy to rip off other people's ideas.

'Sampling hasn't helped. For instance, Cameo come out with the famous Cameo Snare and everyone goes and samples it and uses it on their own track. I think a lot of people are unaware what sampling does to sound. Continually shifting the sample around between devices changes the quality of the sound. There are a lot of sounds used which are badly edited.

'Knowing what to look for in a sample used to be the province of Fairlight and Synclavier programmers, but good-quality samplers are now available at relatively low prices. So you get lots of people without the technical know-how editing samples badly. There are an awful lot of people out there who program in a very amateur style – but I don't know if the people who buy the records actually notice.'

Man or machine?

So if the easy availability of high-tech equipment means every Tom, Dick and Harry can be a Neil or Chris, does that spell the end of creativity? Some critics argue that music is now in the hands of computer programmers rather than musicians and has lost its human edge – but Hancock disagrees.

'Music is becoming increasingly production-oriented. It is moving toward those who are more technically-minded. The great thing about sequencers is that you can get anybody tapping away on them and once you've quantised it it sounds fine. Computers allow people without a great knowledge of music to be creative, but a lot of music has become stereotyped because some people depend too much on sequencers.

'Live things do sound fantastic. Wherever possible, we try to incorporate live recordings in sequenced music. *Left To My Own Devices* has a 50-piece orchestra which sounds great. You can't artificially reproduce the sound of an orchestra, just like you can never produce the sound of a saxophone or a guitar on a synthesizer. On woodwind instruments you can bend the note on the reed, but you can't yet reproduce that.

'Computers make the recording and mixing process much easier, but inevitably live musicians are still essential.'



VORSPRUNG DURCH MUSIK

Frankfurt, West Germany: ST ruled OK at the recent Frankfurt Music Fair, with products like Steinberg's multitasking M.ROS operating system helping to extend the power and flexibility of micro music even further.

But, as Graham Wayne reports in next month's TGM, despite the ever-growing bells'n'whistles on modern music packages, they're in grave danger of becoming too standardised and too concerned with pure presentation – leaving the user more confused than ever.

Watch for an exclusive analysis of the Frankfurt fair and the state of music in TGM018, on sale April 20.

FULL WARNING STATUS: CONDITION RED

BLASTEROIDS







AMIGA SCREEN SHOTS



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COMING SOON FOR COMMODORE AMIGA £24.99; ATARI ST £19.99; C64 SPECTRUM, CPC AND MSX DISK £14.99, CASSETTE £9.99.

image works

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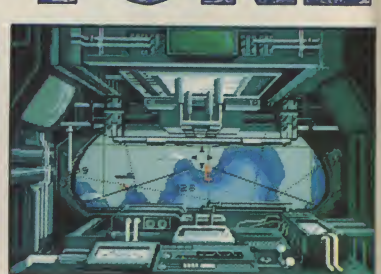
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LEAF-BLA



OPERATION NEPTUNE



The tranquil surface of the Pacific Ocean belies the battle of wits taking place in the world's last unexplored territory. A perfect hiding-place for a determined enemy, or is it? Your jet-bike and technologically advanced bathyscaphe should help, but there are still the enemy bases to destroy, lines of communication to be knocked out, and the natural predators of the deep just waiting for a tasty snack at the first sniff of blood! So check your oxygen supply, and dive, dive, dive...

Atari ST, PC, Amiga £24.95
CBM64, Amstrad £14.95 (disk), £9.95 (tape)



INFOGRAMES, MITRE HOUSE, ABBEY ROAD, ENFIELD, MIDDLESEX, EN1 2RQ.

INFOGRAMES

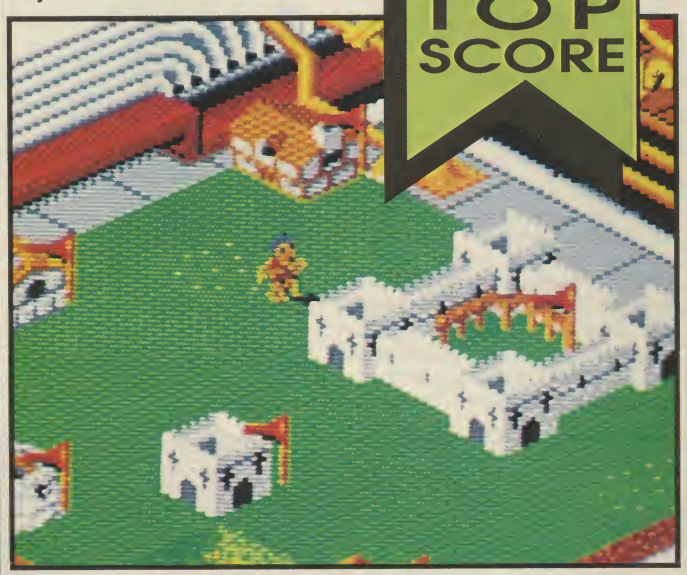
The Games machine

REVIEWS

24 ■ POPULOUS

Never since Little Computer People has a game given you so much power over the lives of poor, defenseless 16-bit sprites. Electronic Arts's Populus gives you more than just a house to control — you have an entire world at your disposal. Play either God or Satan and let the cosmic battle begin. And with 500 levels you'll be playing till judgment day!

The Games machine TOP SCORE



27 ■ ZANY GOLF

Normal golf was never like this! Imagine crazy golf getting ten times crazier where anything can, and does happen. Watch soldier ants taking away the holes, then try for a shot at the ketchup-laden Hamburger Hole. You'll be putting till dawn.

41 ■ PIPELINE

For puzzle-lovers a game to really drive you round the U-bend! It's so simple screenshots can't do it justice, but wait till you load it up and try and stop yourself having one more go. Oodles of unadulterated addictive gameplay from Titus as you lay a pipeline within a merciless time limit.

The Games machine STAR PLAYER

35 ■ RUN THE GAUNTLET

Fast, furious action in this rough and tumble sports simulation from the TV show which Ocean kept quiet about, but now it's out and the TGM team have been running the gauntlet in road races, assault courses and water racing.

AND INTRODUCING...

Ladies and Gentlemen, please give a warm welcome to your very own Star Update! Yes, this month and every month the Star Update will appear for your delight and delectation, signifying the most prestigious plenum, a pulchritudinous package appearing for the first time at a new venue.

STAR UPDATE
53 ■ Super Hang-On

The Games machine STAR UPDATE

SPECTRUM

Blasteroids 36
Dark Fusion 29
Dragon Ninja 31
Dynamic Duo 56
Emlyn Hughes International Soccer34
Human Killing Machine 26
Incredible Shrinking Sphere 55
Rock Star 26
Run the Gauntlet 35
Techno Cop 33
Tiger Road 29
War in Middle Earth 54
WEC Le Mans 48
Xenon 54

COMMODORE

Denaris 49
Dragon Ninja 31
Emlyn Hughes International Soccer34
Grand Prix Circuit 51
Incredible Shrinking Sphere 55
Rocket Ranger 52
Techno Cop 33
Tiger Road 29
War in Middle Earth 54
WEC Le Mans 48

AMSTRAD CPC

Afterburner 31
Galactic Conqueror 32
The Munsters 32
Techno Cop 33
RoboCop 50
War in Middle Earth 54

ATARI ST

Barbarian II 45
Billiards Simulator 28
Blasteroids 36
Captain Fizz 48
I, Ludicrus 28
Federation of Free Traders 42
Pipeline 41
Silkworm 44
Skrull 52
Zany Golf 27

AMIGA

Advanced Ski Simulator 33
Blasteroids 36
California Games 32
Cosmic Pirate 40
Denaris 49
Flying Shark 30
Hostages 50
Live and Let Die 50
Silkworm 44
Soldier of Light 30
Space Harrier 25
Super Hang-On 53
Tiger Road 29

PC

Bards Tale II 32
Galactic Conqueror 32
Hostages 50
Strike Fleet 30

NINTENDO

Gradius 51

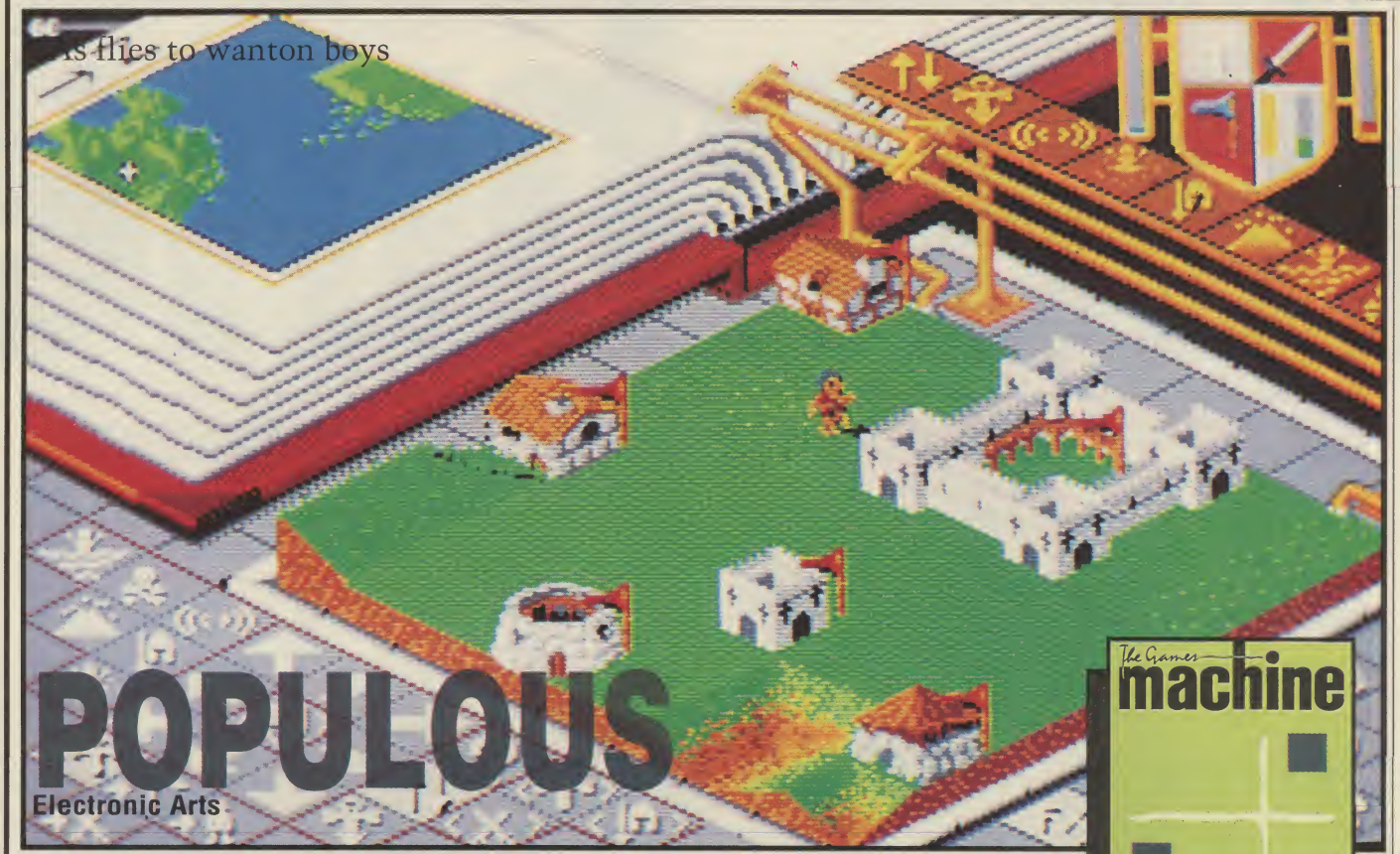
SEGA

Rastan 50

PC ENGINE

Dragon Spirit 58
Galaga 88 57
Victory Run 57
Vigilante 58

PRESS ANY KEY



POPULOUS

Electronic Arts

The Games machine

TOP SCORE

At the dawn of time, man was nothing but a primitive sprite of a being with little more than a hut to live in and a pocketful of prayers to his name. All seemed blissful down below, but up in the heavens God and the Devil were constantly fighting for supremacy over the other.

Now the time has come for both deities to bring out the big guns in the battle of all time with Earth and the fate of the populations below as the prize.

Populous is played through the extra-terrestrial eyes of either the Devil or God, the choice is yours but the objective remains the same — use your followers to rid the land of the enemy.

Through the map of the world you create land for your people to establish settlements and fields for cropping.

First your followers are limited to a handful with little more than a solitary hut between them. By divine intervention the landscape can be raised or lowered to create flat lands. As the flatlands expand so your followers spread out, building new huts and becoming more civilised with every step, different levels of progress and strength being shown by different buildings (from wigwams to castles).

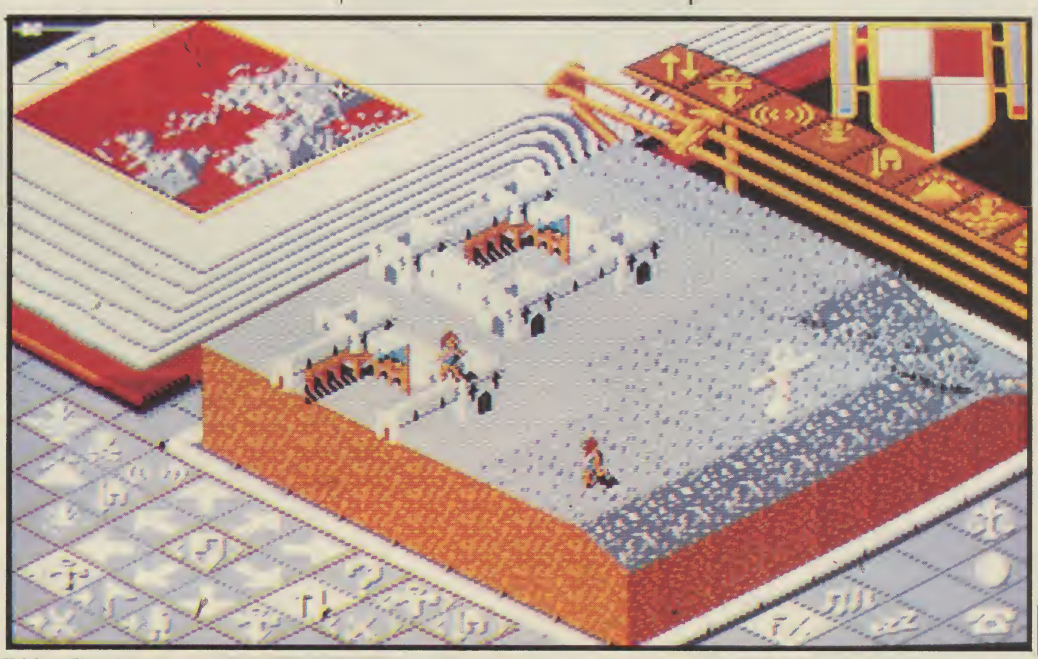
Manna makes men

With more people devoting their prayers to you comes an increase in your manna level. Manna is the source of all your strength and the more you have of it the better your chances in battle.

At first powers are limited to little more than the odd movement of the earth, nothing to get your followers bowing down to you, but it's a start. Greater powers allow the casting earthquakes, swamps, volcanoes and floods on those down below.

If you're feeling in a nasty mood (in which case, play the Devil) you can make your leader into a knight. Once created, this psychopath sets off for the nearest enemy settlement and fights until killed. If he has the strength he's nigh on impossible to control but great fun to watch as he burns and pillages settlements.

When opposing factions come into conflict a short one-on-one battle ensues — the stronger of the two taking over the other's dwelling. Walkers can increase their power by gathering together to form a stronger walker — bigger buildings also help generate more



From all four corners of the Earth comes running your populace — first to touch the Papal Magnate gets to play leader

powerful walkers.

Populous is played through a magnified view of the world below with all landscape gardening, miracle-performing and disaster-inducing conducted directly on the land. The population invariably takes the full brunt of any attack: earthquakes shake settlements to the ground, volcanoes create rocky hills in the midst of dwellings, swamps make life difficult for walkers trying to resettle land.

Big Devils

While you're busy helping with the progress of your own civilisation (and the downfall of the others) your opposite number is doing the same.

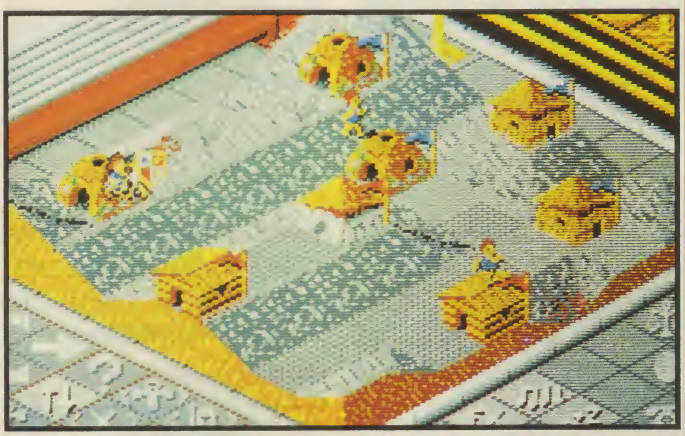
The final option is Armageddon in which both sides move toward their respective leaders, combine to form a sole warrior and then fight in a final battle for the Earth. Making sure you've got more strength than the enemy is a good idea before choosing to risk all in a bloody climax.

If victory is yours a *Sentinel*-style jump is made to a harder world — there are 500 in all. Your performance in one world affects how many worlds you jump past. With four types of terrain and an increasingly nasty computer-controlled opponent keeping up the pressure all the way means trying to fight a 500th level Devil doesn't bear thinking about.

Like most new wave Electronic Arts games, *Populous* can be played with another Amiga-owning would-be-God via modem datalink. The landscape can also be totally customised and a tutorial mode is available.

There's something immensely compelling about *Populous* that stems from watching people walking around the land, going about their own lives. and developing — it's as entertaining as playing to win. Not since Activision's *Little Computer People* have pixellated characters been the source of so much emotion, and after a while you really do believe in them.

The gameplay may change little with the appearance of different terrain but the cleverly designed skill level system throughout all 500 levels keeps the pressure on. In short *Populous* is addictive beyond belief.



The knight — the right little arsonist — sets fire to a keep after killing the occupant. Perhaps the neighbours can extinguish it with pool water...

AMIGA 90%

£24.95

The main bulk of the graphic detail is restricted to the window on the world but what there is is full of detail and a charm all of itself. The rhythmic beat of your heart (increasing when you do badly) together with a simple but highly atmospheric soundtrack greatly enhances an already great game.

OTHER FORMATS

An ST version is planned (£24.95).

See this month's 0898 page for details of how you can win *Populous* with a modem!

"Not since Little Computer People have pixellated characters been the source of so much emotion"

VERSION UPDATE

SPACE HARRIER

Elite Systems ● Amiga £19.99

SPACE HARRIER predated Out Run in the arcades and that's going back quite a few years! Indeed Elite have taken more than their fair share of time over the Amiga version but judging by the final game that time was well spent.

Markedly different from the ST version, the full screen is used but the top third of the screen isn't used by any of the graphics. This clever graphic technique creates the illusion of a wider playing area than there actually is and also gives a lot more room to move around.

The sprite of Mr. Harrier himself and the aliens, obstacles, guardian aliens and the rest are good with detail and definition but lack the full pallette of Amiga colour.

The need for speed is satisfied superbly with rocks, aliens and surreal creatures hurtling towards the player with all the subtlety and speed of a freight train. The speed and instant playability of the coin-op have all been transfered to computer superbly, and thes attributes alone make the Amiga Space Harrier the most faithful of the conversions from the coin-op yet.

Fluid movement, fast paced gameplay, a driving soundtrack and all action blasting — what more could you want?



Refugees from Easter Island attack our jet-setting hero amid the crumbling coloumns of stage two

OVERALL 87%
ATARI ST TGM012 85%



This fire-spitting dragon awaits the arrival of Mr Harrier at the end of stage one in what is the best version yet

SPACE HARRIER II - DATA DISK

Amiga: £19.99, Atari ST: £19.99

The Space Harrier II data disk contains the other ten levels of the coin-op. True in form to part one Space Harrier II is very similar in play but obviously varies in graphics and difficulty level (after all you're playing the later, much harder levels of the coin-op).

Personally, we prefer Gerbils but a...

ROCK STAR ATE MY HAMSTER

Code Masters

For a change Code Masters opted out of adding 'simulator', 'plus', 'professional' or 'advanced' to the title of this, their latest assault on the full-price market. *Rock Star Ate My Hamster* is most definitely one of the funniest games for a long time. It takes you into battle with the gutter press when all you want to do is manage a few crooners.

The objective is to become obscenely rich and famous (so why isn't it called 'Darlings Simulator'?). in the back-stabbing world of show bizz. *Rock Star* lets you experience the trials and tribulations of Cecil the manager and his assistant Clive.

Start by choosing from one to four rock stars to manage from a rogues' gallery of faces. It's up to you to name your group (if you chose two or more performers), and then it's on with the show.

Ultimately you want to get to the top of the charts. Starting with fifty thousand quid there are three choices: to practise, play a gig or get some much needed publicity. The trick is to practise as much as possible, get as much media exposure as you can and the money (as well as sponsorships and record deals) should roll in. On a record deal choose titles of tracks as they're recorded and whether to release an album and/or singles — with these you can also make a video.

Do you have the skill and luck to win lucrative sponsorships and be awarded a gold disk or two? With *Rock Star* budding Arfur Daleys have a good chance of finding out. Tongue firmly planted in its cheek, its portrayal of the gutter press is great. At a budget price *Rock Star Ate My Hamster* would be a must, but still at full price it offers many hours of amusement.

SPECTRUM 74%

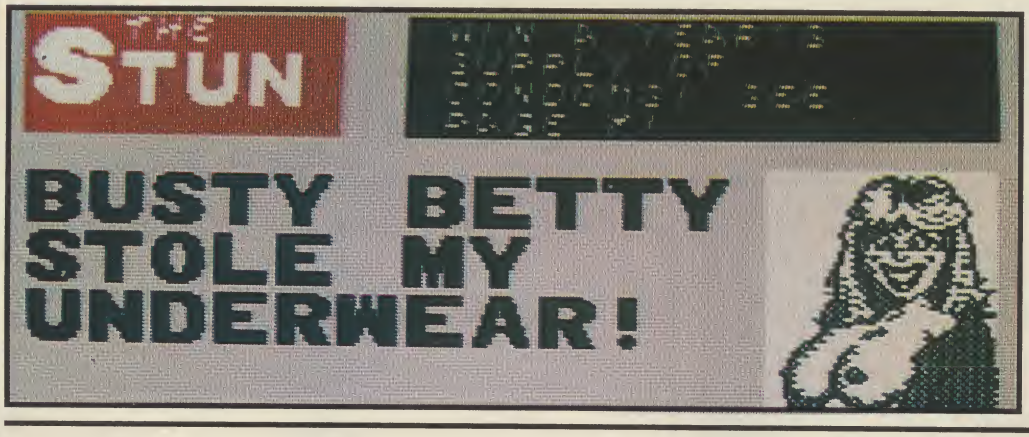
£9.99 cass
£12.99 disk

It's easy to see which popsters Rock Star **is poking fun at, as the graphics are marvellous caricatures of some well-known faces. The screens are varied and colourful, although they repeat after a few hours play. Sound is surprisingly good with not only FX but a few in-game tunes to simulate potential hit singles.**

OTHER FORMATS

£9.99 cass and £12.99 disk is the prices pop pickers will have to pay for other versions of Rock Star on Amstrad CPC and C64/128. All formats released mid-March.

"Definitely one of the funniest games for a long time"



Kwon down, five to go in

THE HUMAN KILLING MACHINE

GO!/Capcom

Take a beat-'em-up trip round six of the world's landmarks, indulge yourself in a little local custom at each venue and become the Human Killing Machine. A tad familiar? HKM: superhero, racist bully-boy or just a plain old rehashed version of Go!'s earlier title *Street Fighter*?

Vicious title for a vicious game which takes Kwon — the lean mean oriental fighting machine on a non-stop tour of Moscow, Amsterdamt, Barcelona, a German bar and finally a jaunt in war-torn Beirut.

Relying on the same old combat moves as most other one-to-one beat-'em-ups, *HKM* doesn't offering anything inspiring in the fighting department other than exotic backdrops. There's a Muscovite soldier who deals a nasty blow with his rifle — and his dog's not nice either; in Amsterdam deal with the sadistic nymphette Maria and the Dutch version of Tina Small, Helga. While in Barcelona there's Miguel (first name San y'know) the bull fighter and his pet bull Brutus. Hans and Franz of Germany throw broken beer glasses at you and as for the fanatic in Beirut... fortunately you only have to take them on one at a time. It's a reasonable beat-'em-up but doesn't take the aging genre into any new areas, except for the graphics which are brilliantly detailed, and the animation on the massive sprites is a bit special.

SPECTRUM 70%

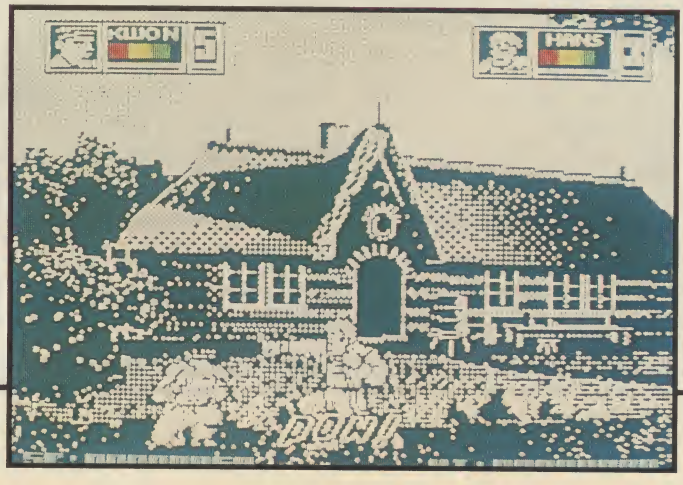
£8.99 cass
£12.99 disk

The black and white scenery is well designed, so are the large well-animated characters; full marks to authors Tiertex on that score. Even when accompanied by the biff, bash, boppity bop sound FX, HKM **is a touch repetitive, but still plays well enough to remain addictive.**

OTHER FORMATS

C64 and Amstrad versions are available at standard US Gold prices. 16-bits are available at the new, low price of £14.99; though we reccommend you compare it to the 16-bit IK + **(Amiga out now) before parting with your coins. Expect all versions to look and play similarly to** Street Fighter.

"A rehash of Street Fighter?"



Putting it around

ZANY GOLF

Electronic Arts

Remember as a kiddy, going on summer hols to the seaside? While enjoying the sea, sand and (if you were lucky) sun, the family would get into the holiday spirit by indulging in a game of crazy golf. Dad usually got stuck behind the novelty lighthouse, granny always got a hole-in-one and you'd end up sulking for coming last. Now games designer Will Harvey has recreated those lazy, crazy days of summer for those who'd rather stay indoors.

The beauty of computers is that they can bypass reality to allow wild and wacky, and yes, zany golf holes to be created. Up to four players can tackle the mad nine-hole course, and eventually the mysterious tenth.

A shot is played by clicking on the ball then drawing back the cursor to draw a white dotted line between the two. The direction of the line indicates the path of the ball, its length the strength of the shot. Releasing fire strikes the ball.

Hole one is the traditional Windmill, which sets you up with an easy putt if you get the ball between the sails. Things get strange from then on, with a bouncing hamburger guarding hole two, complete with squirting ketchup as a corner post.

Obstacles mar your par

A game of pinball is played as the major part of hole four, the fire button used to activate flippers with the target a hole at the top of the table. A wiggling-mouse action is used to activate fans on the next hole which influence the balls path — as do the mouse gyrations when on the magic carpets of hole six. Castle gates and barriers are the next obstacles, then pesky ants who keep moving the eighth hole! The ninth takes place in a spooky castle of generators and gadgetory ready to disintegrate your balls — very nasty. Hole ten is a complete mystery

You begin with five shots, each hole should be completed within par and for the Sandy Lyles among you, unused shots are carried over from previous holes. Extra shots are awarded for putting within a time limit or by hitting a fairy (no comment).

Zany Golf appears to be an innocent little game, and as such may easily be overlooked. This would be a mistake as once the control system is mastered — which doesn't take long — the variety of unusual holes becomes enthralling, particularly when competing against friends. Though their aren't many holes, lowering your score (below par) is a good incentive for further goes. Data disks would be a nice idea for the future.

ATARI ST **83%** — £24.95

Grass and similar plain graphics are highlighted by unusual hole features which are colourful, neatly defined, and well animated — the ketchup bottle in particular is excellent. Scrolling is quite poor and ball movements are occasionally strange, but neither are a real problem and at least a few of the tunes are pleasant enough.

PC **82%** — £24.95

Certain colours are different and the playing area is larger, but otherwise the graphics are identical to those of the ST. Using keyboard control is cumbersome and annoyingly slow but the ability to scroll to the hole or ball helps you to judge your shot.



OTHER FORMATS

Wacky Amiga golf should be available very soon, at the same price.

"Once the control system is mastered, the variety of unusual holes becomes enthralling"

Would-be Ballasteroses can begin their career in a humble and crazy manner. With a simulation like this who needs St Andrews?



Fairies,ants,hamburgers,pinball machines and magic carpets — what more could you want?

Something happened on the way to the forum

I, LUDICRUS

CRL

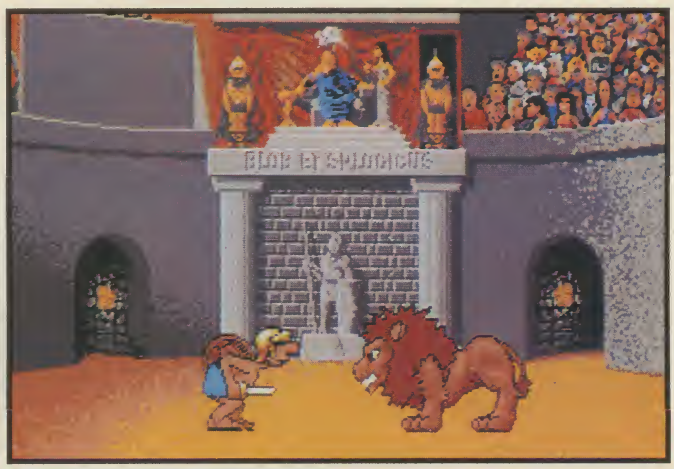
Titter ye not, CRL have been busy programming a hack-'em-up with a difference because it casts you in the role of Ludicrus, a hapless fighter throw into an ancient Roman arena to tackle a number of vicious and unlikely opponents.

Armed only with a loincloth, visor, sword and shield you have to try and take out characters with such unlikely names as Herr Liss, Bon Dage and Bud Vyzr. Each opponent has his or her own tricks to play, and each require different tactics to beat. If succesful, the player progresses to a bonus round where a fearsome lion must be confronted.

Roman humour

There's not much you can say about *I Ludicrus* except that, graphically it looks a treat, with the comical sprites well animated and the backdrop of the arena very pleasing on the eye. What is a great shame is that, despite all the fancy trimmings there is really very little to the game at all. As with all beat-'em-ups, once the joystick controls have been mastered it's simply a question of learning your opponents weaknesses and exploiting them. Once that's done you've seen the game.

From the opening sequence where Ludicrus falls flat on his face whilst trying to adjust his visor the game positively radiates humour. The sprites are extremely well drawn and are animated in true cartoon style —when Ludicrus is pushed backwards his neck stretches backwards as if made out of rubber. All on all this is a graphical treat, but its longterm appeal is questionable to all but die-hard hack-'em-up fans.



Under the noble Roman exhortation of 'Blob et Splvdicvs', it looks like a tough moment for the ignoble Ludicrus as he faces his toughest opponent this side of the Alps

WIN I, LUDICRUS!

Turn to page 68 for details of how you could win copies of *I Ludicrus* or, better still, a trip to Rome!

ATARI ST 63%

£19.95

Ludicrus **looks very attractive on the ST, making good use of the colour palette — it's just a pity that the backdrop is static and unchanging. The sounds are amusing and enhance the atmosphere of the game. The joystick positions can be hard to master at times, and there is a curious delay which can lead to strangely disassociated gameplay on occasions.**

OTHER FORMATS

Ludicrus **is also available on the Amiga at the £19.95. 8-bit versions should be released this summer.**

"A graphical treat, but its longterm appeal is questionable"

Three balls do not a great game make

BILLIARDS SIMULATOR

Ere International

Now here's a curious thing. Imagine billiards played with just three balls — white, red and yellow. The objective is to hit both coloured balls with the cue ball in one shot. Steve Davis territory this ain't but then the French always have to be perverse, don't they?

If it sounds boring, it is. But there are more than enough variables to keep at least some interest in the product. Determine cue position by clicking the left mouse button, cue elevation with the right. You can change perspective on the table from two dimensions to three, and determine the rebound effect or gravity of the balls, as well as altering cushion friction, spin and table friction. You can even retake your shot if you make a pig's ear of it.

Playing against the computer or a human opponent, your *Billiards Simulator* is about as interesting as noughts and crosses, with as much longterm appeal. Alright, so it might teach you something about the trajectory of balls on a billiards table, but is that something you really want to know?. Some players may have a fascination for this sort of product, but to many its aimless lack of purpose combined with its singular lack of gameplay will make it grow tiresome all too quickly.



The gentle 'bok' of ball on ball in either two- or thre-dimensions

ATARI ST 54%

£9.99

Billiards Simulator **is well implemented. The balls glide smoothly and convincingly across the table. Sound FX are limited to the gentle 'bok' of ball on ball. Although it may allow you to pass a relaxing hour or two, it won't be many more than that.**

OTHER VERSIONS

An Amiga version is out at £9.95, with PC soon to follow.

"It might teach you about the trajectory of billiard balls, but is that something you want to know?"

Anything Ryu Ken do I can do better

TIGER ROAD

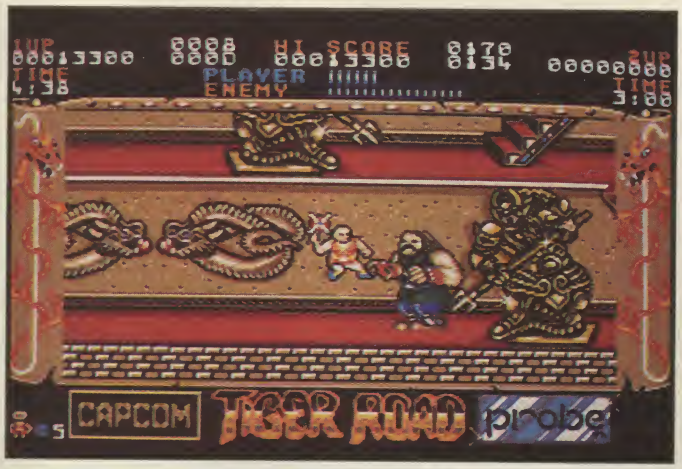
Capcom/GO!

You've seen the ads — now play the game. But unfortunately, the 8-bit versions of this dramatically hyped Capcom coin-op conversion are let down by dodgy graphics and rather repetitive gameplay. Still, Amiga owners can thank US Gold's GO! division for bringing in a licence that has at least the look and feel of the arcade original.

Set in ancient China (we're beginning to sound like *Antiques Roadshow* now), Tiger Road casts you as martial-arts star Lee Wong, out to rescue kidnapped children from the dastardly Ryu Ken Oh.

Roaming through the horizontally-scrolling screens — temples, small rooms, outside scenes — you fight hard with the villain's sword-wielding troops, earning points and (occasionally) weapons or power as they're killed. And urns conceal extra weapons, to supplement the axe you start out with.

Coin-op fans looking for a faithful conversion will be disappointed by 8-bit *Tiger Road*, which bears little visual resemblance to its Capcom parent — despite the large number of different screens. Still, it's pretty playable (if a bit too easy), and for the less choosy player it offers a few hours of straightforward Oriental mayhem.



C64/128 66%

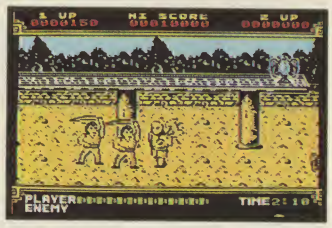
cass: £9.99
disk: £14.99

The backgrounds are often impressive, but diminutive sprites make the action confusing when it's fast and furious. At least the gameplay keeps interest burning for a while — particularly if the droning in-game music is switched off!

AMIGA 70%

£19.99

Predictably, the graphics here ARE fairly close to the coin-op's, especially the well-animated and well-drawn character sprites. Atmospheric sound effects add to the action — all it needs is a dose of extra challenge, and it would be a great game.



SPECTRUM 43%

cass: £8.99
+3 disk: £12.99

No risk of imagining you're in the arcades here — practically the only use of colour is in horizontal strips across the screen, which makes things confusing and helps the game no more than monochrome would. Jerky graphics also let down the gameplay, which in itself is adequate.

OTHER FORMATS

ST and CPC versions should be out now; watch for TGM's Version Update.

8-bit owners can expect to be disappointed by this conversion (Spectrum right), but at least the 16-bit game (Amiga left) has some of the original's feel

"A few hours of straightforward Oriental mayhem"

Our type of competent space blasting

DARK FUSION

Gremlin Graphics

Gremlin's Spectrum shoot-'em-up has an immediate sense of familiarity — *Exolon* and the more recent *R-Type* come to mind. But similarity needn't necessarily breed contempt, it's gameplay that counts, and the way that programmers have recently played chess with the limited pieces you have a on a shoot-'em-up board can almost be as interesting as the games theselves.

The Corps of Guardian Warriors are forced to undergo a stringent three-phase test, hoofing it in armour-plated suits — or flying their ships — through the combat zone. Similarly to R-Type, your gun has a power meter and holding down fire produces a giant plasma bolt. Destroyed aliens drop spheres which provide points, add-on weapons or give extra jump power when collected.

Once inside the combat zone you see three flashing fusion pods, and if you go into either of the first two you're dumped into a spaceship and transferred to the single-screen alien zone. Here, a huge alien (different for each level) attacks you and must be destroyed to return to the combat zone. When both large aliens have been eliminated, you may enter the third pod and the flight zone, a horizontally-scrolling landscape, inhabited by small aliens. The fusion pod at the zone's end takes you to the combat zone of the next ten levels. The elements of the game are well put together, but the difficulty level may have been pitched just too high for many players, with only the most hardened arcadester sticking it out to discover whether lasting appeal is good or not. Are you tough enough?

It's time to turn tail and run away as a nasty green alien walker threatens

"A shoot-'em-up for real blasters"



OTHER FORMATS

Amstrad and C64 are available at £9.99 and £14.99, with ST and Amiga available at £19.99

SPECTRUM 78%

£7.99 cass
£12.99 disk

There's more varied play than in R-Type. All levels are colourful and without much clash. The variety of weapons to be collected adds an interesting strategic element.



VERSION UPDATE

STRIKE FLEET

Electronic Arts ● PC: £24.95

LUCASFILM games release this conversion of the C64 modern-day naval game as a sequel to *PHM Pegasus*. The latter was comparatively easy, featuring only one vessel to control, but here your problems are much greater with a fleet of ships at your command, and 12 naval missions to complete. These range from protecting civilian tankers in the Gulf to halting a massive Russian invasion force armed with bombers, warships, submarines and anti-ship missiles.

Even in EGA and VGA modes, graphics are ill-defined and colours restricted to militaristic greys. Smart presentation is let down by dull in-game displays.

Only surface changes have been made to the original — two new missions and an extra ship have been added, but no real improvements over the C64 version are present — although the realism, tension and complexity of the 8-bit counterpart are still there. Unfortunately, the sluggish speed of play on lower-end PCs lets it down.

Realistic but dull looking modern naval combat in EA's latest

OVERALL 64%

C64: TGM006 85%

VERSION UPDATE

SOLDIER OF LIGHT

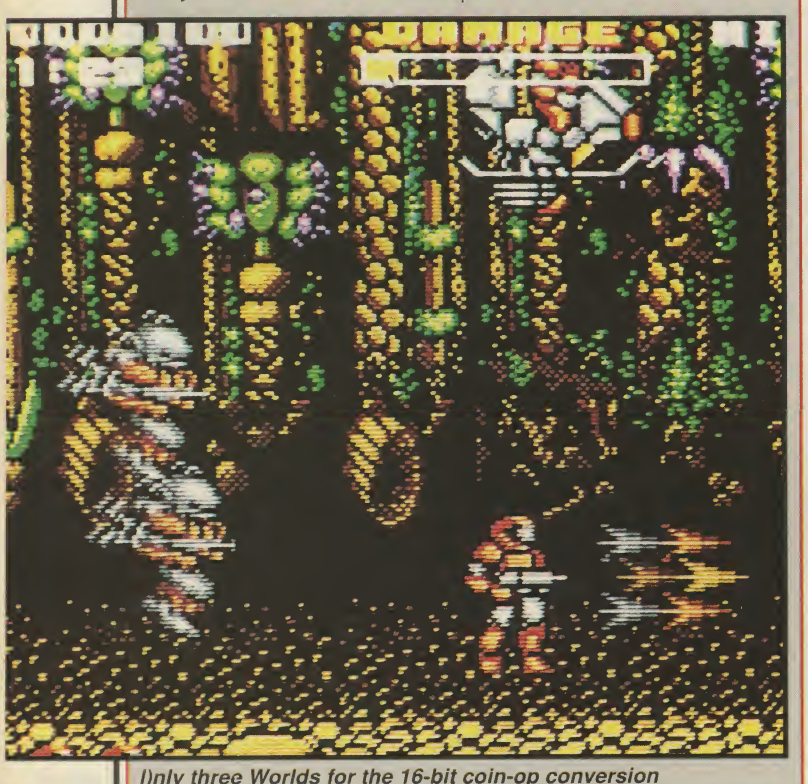
Ace ● Amiga: £24.99

PLANET BATTLES are too easy — just keep going, firing continuously, while space battles are too tough. Collision detection is iffy in places and the game slows when a lot of characters are on-screen.

Sound and graphics are okay— the theme music grows on you — but this version should have been an exact replica of the coin-op... and it's way off that.

OVERALL 60%

TGM008: SPECTRUM 86%
TGM015: C64 77%
TGM015: ST 70%



I)nly three Worlds for the 16-bit coin-op conversion

VERSION UPDATE

FLYING SHARK

Firebird ● Amiga: £19.99

WHY this Amiga conversion should take so long to complete and still look identical to the ST game is mystifying. The presence of a better tune and an Easy/Hard mode don't explain the delay, maybe it was time-consuming recreating that famous jerky-scrolling ST look. Comparisons with the ST are inevitable, but the game remains just as challenging. The concept is dated but it provides simple, enjoyable and addictive gameplay.

OVERALL 72%

SPECTRUM: TGM003 83%
C64: TGM003 74%
AMSTRAD: TGM004 80%
ATARI ST: TGM014 84%



The winged carnivorous fish gives Hirohito a savage nip

Ninja terror hits the streets, roads, sewers...

DRAGON NINJA

Imagine Software

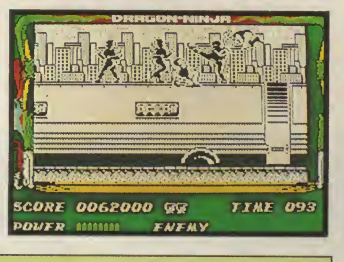
The President's been grabbed by Ninjas! Someone notices and raises the alarm. Enter Dragon Ninja to fight through eight levels and rescue the man. With this much plot you couldn't expect much in the way of subtle gameplay — you'd be right

Ninjas are out to stop you. They deal out death with razor-sharp swords and nunchakus. Female ninjas, killer dogs and real bad end-of-level dudes lessen your chances of surviving. And watch out for multiplying ninjas and Mr Big.

Some of the coin-op's originality remains in these computer conversions with action taking place in various locations. The 8-bit games are one-player only, a little disappointing considering the fun that could have been had with two Dragon Ninjas, but play remains moderately enjoyable.

"Play remains moderately enjoyable"

Truck-top terrors as the Dragon Ninja takes on all-comers — Spectrum version right, Commodore 64 far right



C64/128 47%

cass: £9.95,
disk £14.95

Crude sprites lack detail and animation and jerk around in front of poor-to-average backdrops. Collision detection is too precise — making the game far too frustrating to enjoy.

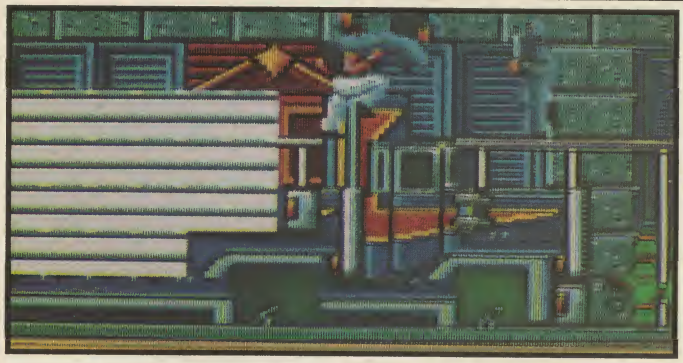
OTHER FORMATS

Two-player ST and Amiga versions, £19.95 and £24.95 respectively, imminent.

SPECTRUM 61%

cass: £8.95,
disk: £14.95

Gameplay is relatively easy — even with twice as many ninjas to deal with. Too much monochrome and slow scrolling dulls the presentation, but at least playability hasn't been sacrificed.

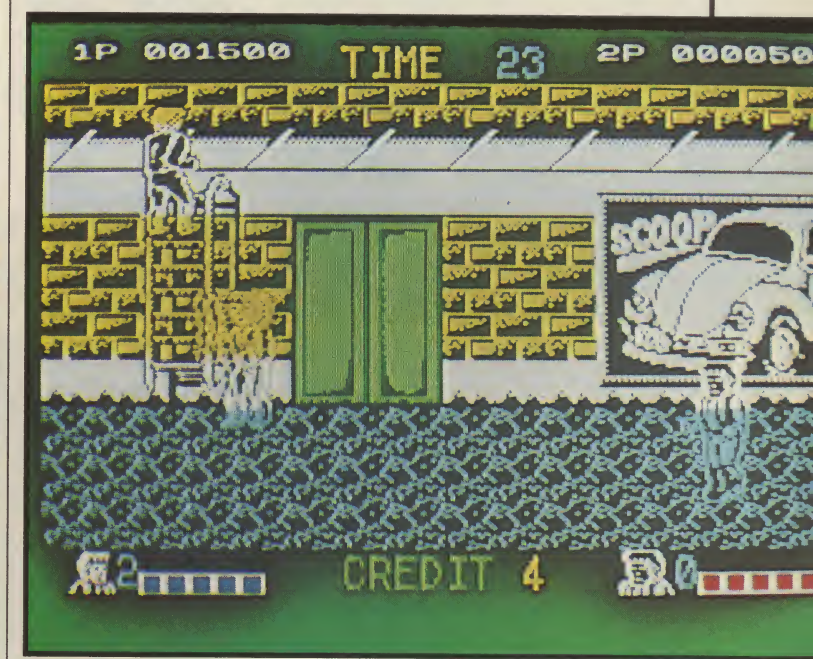


Level one ninja action with the Mac truck rushing past in the background — Amstrad

CPC 63%

cass: £9.95
disk: £14.95

A potentially excellent conversion falls down because it's far too easy. Graphically attractive, end-level dudes adopt similar attack patterns and are easily defeated. 128K machines hold all levels in memory and feature some quiet sampled speech.



VERSION UPDATE

AFTERBURNER

Activision
Amstrad cassette: £9.99, diskette: £14.99

FOLLOWING a mixed reception on other machines, Sega's biggest coin-op to date makes its Amstrad appearance. Keith Burkhill, the brains behind the Spectrum version was given the job of making a Tomcat come to alive on the CPC. The resulting product combines the colours and graphic potential of the Amstrad with the playability and speed of the Spectrum.

Unfortunately, despite all of its good points — gameplay to match the coin-op, great sense of speed and high paced action — the player is allowed too many lives. A few hours solid play is all it takes to complete the mission. Occasional obscuring of missiles and a 360 degree roll which is a tad tricky to induce help to increase the overall difficulty, but not sufficiently to redress the balance.

Topping up the gas-guzzling power plants from a suspiciously Russian-looking flying service station—they ain't shellin' out

OVERALL 68%

ATARI ST: TGM015 47%
C64: TGM015 29%
SPECTRUM: TGM015 83%



PRESS ANY KEY

VERSION UPDATE

CALIFORNIA GAMES

Epyx ● Amiga: £19.99

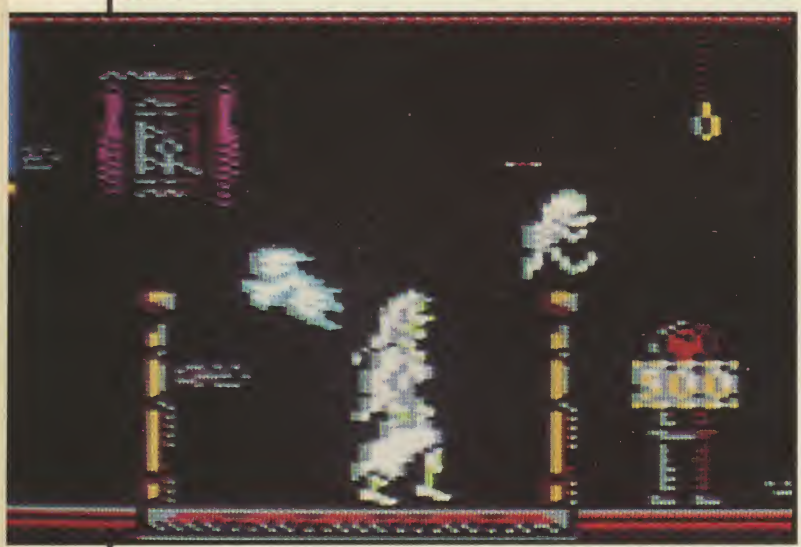
IF THERE is a version to beat the supreme programming of the C64 original, this must be it. However, the graphics have only been improved in definition and animation, with disappointing added detail. And sound-wise Epyx games have never been strong. Where this game really scores is in playability and the fun spirit of competition.

OVERALL 73%

PC: TGM006 90%
SPECTRUM: TGM003 45%
C64: TGM001 92%



Plenty of radical action from the makers of the famous Games *series. Graphics and sound are unambitious but playability is as good as ever*



VERSION UPDATE

THE MUNSTERS

Again Again
Amstrad CPC: cass £9.99, disk £14.99

WHY sprites in this version are so blandly designed is a mystery — white, grey and pale green characters animate dreadfully in front of equally basic backgrounds.

The gameplay is ruined by circular bomb-like spells, which move slowly and only appear on-screen one at a time — making even small ghosts dangerous. Altogether, weak graphics and cumbersome control spoil what was only an average game in the first place.

This pale blocky Munster is as weakly defined as this TV comedy licences gameplay. Simple shooting action, few locations and some very tough opponents soon induce frustration

OVERALL 44%

SPECTRUM: TGM015 65%
ATARI ST: TGM015 57%

VERSION UPDATE

THE BARD'S TALE 2: THE DESTINY KNIGHT

Interplay/Electronic Arts ● PC: £24.95

THE main problem with this product is its age. There are many hours of play but actions are uncomplicated: combat is a choice of flee, defend or attack, and inter-character communication is impossible. However, for beginners and hungry RPGers there remains plenty to do.

EGA is used to create effective stonework and interesting character graphics, although there is occasional unsightly use of colour and crude animation.

OVERALL 68%

AMIGA: TGM010 76%





VERSION UPDATE

GALACTIC CONQUEROR

Titus ● Amstrad CPC: cass £9.99, disk £14.99
PC: £24.99

BACKING the 16-bit version's attractive presentation, the CPC game is instantly disadvantaged. EGA mode is apparently supported on the PC, but in practice only the familiar purple, cyan, black and white of CGA are visible. The planet-striping effect is not smooth, making the speed of the spacecraft equally spasmodic, and the sound effects are irritating.

Dancing stripes do little to help the dodgy perspective as restless rebels zoom aggressivley towards you. It's a shame the game isn't as lively

AMSTRAD 48%
PC 56%

AMIGA: TGM016 63%
ATARI ST: TGM016 62%

Forewarned is forearmed

TECHNOCOP

Gremlin Graphics

In the film *RoboCop* they made a man out of parts and put him to work. In *Techno Cop*, Gremlin have made a game out of bits and bobs from other games, but in this case, amid a welter of gore, the finished product doesn't work.

Techno Cop, armed with a powerful gun, net-gun and high-speed vehicle, is out for blood — criminal blood. Wrapped around his arm is a hi-tech computer to help him track down offenders, the more rapidly to get thum under six foot of dirt.

Two distinct games emerge. The highway chase stage is similar to *Road Blasters* but with add-ons less readily available, and with automatic gears driving soon becomes mindless. The building stage has the leaps and pistol fire of *Rolling Thunder*.

But none of this excuses the gratuitously bloody mayhem which ensues and looks even worse on the 16-bit screens.

"No excuse for gory mayhem"

SPECTRUM 54%

cassette: £7.99, diskette: £12.99

The monochrome and road perspective work nicely, but the update of vehicle and roadside features is far from perfect.

AMIGA 52% £19.99

Good roadside perspective is spoiled by simply animated vehicles and the cop walks as if he's about to fall flat on his face. The most satisfying effect comes from blasting thugs into bloody, twitching hunks of dogmeat. — but is that nice?

AMSTRAD 48%

cassette: £9.99, diskette: £14.99

Odd perspective and screen update speed ruin the racing section. Small sprites and liberal use of bright red is not pleasing on the eye.

C64/128x 22%

cassette: £9.99, diskette: £14.99

Dubious road animation, blocky cars, trees, and explosions, attribute clash and enemy vehicles that split in half for no other reason than bad programming, weak sound and a tedious multi-load — that's it.

OTHER FORMATS

Atari ST and PC (both £19.99) are imminent.

Playing this won't make your day Amiga below, Amstrad underneath





Let's piste again in Advanced...

SKI SIMULATOR

Codemasters Gold

Skiing down a course marked with gates to negotiate against a time limit, trees, huts and rocks makes things far from easy in this bird's eye view game Code Masters call a simulation !

Anyone hoping for a fast and furious sport simulation will be disappointed — there's no sense of speed and when jumping all you have to do is aim the skier at a precipice and hope for the best. Despite the packaging's claim that the game features 'realistic jumps with controllable landings' you have little control over either.

One or two players can race, but as none of the sport's subtleties are reproduced, there's very little for the either player to do apart from steering past hazards. Seven pistes add some variety but little long term appeal.

Advanced Ski Simulator on Code Masters' Gold Label is virtyally identical to *Professional Ski Simulator* released for the Spectrum for £1.99 well over a year ago.

AMIGA 50% £19.95

Idyllic alpine scenes set the atmosphere but the shading technique used to create a sense of depth on the pistes gives the courses an unrealistic, rectangular appearance. Sound effects are poor even though the packaging claims they're sampled.



OTHER FORMATS

No firm plans yet but expect to see an ST conversion.

Active computer sports enthusiasts will find less to do than sitting in an armchair

"None of the sport's subtleties are reproduced"

I get a kick out of you

EMLYN HUGHES INTERNATIONAL SOCCER

Audiogenic

Whatever happened to Emlyn Hughes? Fans of the TV presenter's ready wit, back-slapping and squeals of 'I know it, I know it!' are disappointed by the latest series of *A Question Of Sport*, where cricketer Ian 'Guy the gorilla'Botham replaces our Emlyn. But now Crazy Horse Hughes is back — on the Spectrum and C64, where Audiogenic have updated their classic *International Soccer*, endorsed it by Emlyn, and put his inane grinning visage on the front.

It's a cross between a sports sim and a football-management game. *Emlyn Hughes International Soccer* allows you not only to physically control your team's players, but also to influence their fortunes as manager by choosing team members and matches (see box headed Play Options).

Each match is viewed from the side stands. Controlling one player at a time, you try to get the ball, using a sliding tackle if necessary.

Complex joystick control allows hundreds of different kicks. And though the full range of techniques is tricky to master, it can involve five different directions, three different heights, backheeling, sidestepping and heading — not all at the same time!

But what d'ya do when the ball is half a pitch away from your player? Changing players can be done manually, using the joystick, but it's tricky — especially when the area is crowded. So an option allows you to leave player changes to the computer, which will (theoretically) select what's best. This is recommended on the first few games, at least.

Human factors

The game is 11-a-side, but your squad has 16 members — so you can replace worn-out players with fresh substitutes, or choose the best team for a particular match. Selecting these 16 players is described as 'the most important' strategy element: you choose factors like speed, defensive skills and attacking skills.

But as ALL these can be given the maximum rating, three, it seems pretty easy to construct a 'perfect' team... perfect, that is, till fitness and skill levels deteriorate with injury and fatigue. If fitness goes below 75% it may be time to call in substitutes, who can be fetched at half-time or by returning to the menu screen when the ball goes out of play.

PLAY OPTIONS

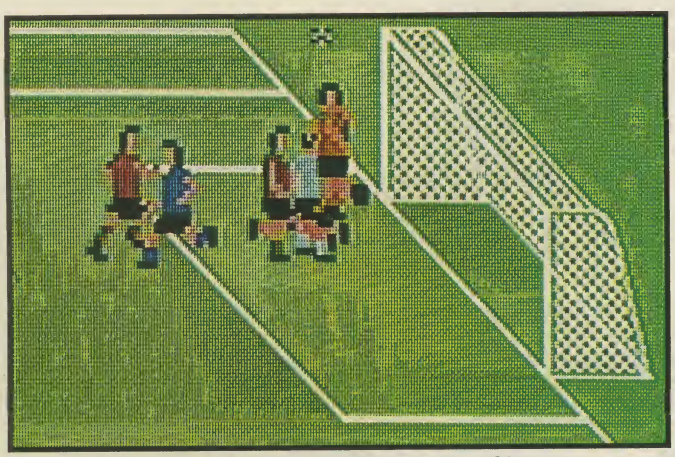
A single game of Emlyn Hughes International Soccer could contain up to 60 matches, in one of the following forms:
LEAGUE: eight teams all play each other once or twice.
CUP: eight teams play, losers of each match are eliminated, one victor emerges in cup final.
CHAMPIONSHIP: eight teams play as a league, then the top four play as a cup competition.
SEASON: includes both league and cup competitions.
Friendly one-off matches-for-the-hell-of-it can also be arranged.
Two human players can compete — and when a match is played against a computer team, the players can join forces to control a squad.

The overall skill level of matches, on a scale of one to ten, is also set, along with match duration, complexity of controls, and even the colour scheme of the ball, pitch and markings.

Variety shows

The variety within Emlyn Hughes International Soccer is truly remarkable, with a total of 43 options covering virtually everything you could want to alter. It's possible to save squads and competitions in progress, and to print out results and details — which all goes to make up a football game with more lasting interest than any other.

The player controls are comprehensive, giving many combinations of height, direction and strength. And while all these will take a long time to master, the options allow the complexity of controls to be gradually built up, easing the burden till you're ready to tackle a very complete simulation.



All it lacks are hooligans, a ref and Coleman's balls — C64 screen

AMERICAN DREAM

Audiogenic toyed with the idea of an American football game before settling on Emlyn Hughes as a bigger British draw.
And there was already tough competition in the Superbowl shape of Cinemaware's TV Sports: Football (TGM016), which Audiogenic boss Peter Calver admires as 'probably the best sports game anyone has done' — except his own, of course.
So after Emlyn, look out for another typically British sports sim from Audiogenic — a 3-D snooker game on 16-bit machines late this summer.

C64/128 88%

cassette £9.95, diskette £12.95

The game looks crude, because it's a direct update of the C64 cartridge, International Soccer. **However, that ancient classic is still noted for its playability, and this new version is significantly more sophisticated. Though sound is limited (an air-horn, a gasping crowd), the ball moves realistically and the action is fast.**

SPECTRUM 85%

cassette £9.95

Quite a small area of scrolling pitch is displayed, which can lead to some confusion in hectic moments — particularly as teams are distinguished only by the stripes on their shirts. But this, like the overhead arrow to indicate the player under control, is easily adjusted to. The stock characters run nicely and amusingly, but the ball movement is less exciting.

One warning: keyboard users could get their fingers in a twist with the full range of moves!

OTHER FORMATS

CPC (cassette £9.95, diskette £14.95) due around mid-April, Brian. ST and Amiga versions are 'going to happen but not for some months — it could be late summer', says Audiogenic boss Peter Calver, explaining that it's a long season for the one programming team doing all versions.

"The variety and options are truly remarkable"

Ocean race to success

RUN THE GAUNTLET

Ocean

Combat School was a surprising success, ringing the changes for compiled event games, and *Run The Gauntlet* offers a similar kind of challenge accompanied by different graphic presentation styles for each of the three events: road racing, water racing or the hill assault course — all of which load separately.

For the waterborne race there's hovercraft, speed boats, jet skis, and inflatable boats. These all have their own handling characteristics and also their own particular race course. For the muddy track races there's two-man buggies, one-man buggies, four-wheel bikes and amphibious six-wheeled vehicles. There are two courses for these machines. And as for the assault courses... it's shanks's pony for the two different layouts.

Four teams can take the challenge but one is always the computer which acts as a pacer. The waterborne race is a Spy Hunter-style overhead view which looks deceptively easy, but the vehicles' characteristics are tricky, collisions with other vehicles or land leads to spins, and explosions can throw you off course. In the track racing the flickscreen action is more three-dimensional. A useful map helps anticipate bends and hills, but again, explosions prove to be a hazard. Probably the most graphically attractive section, this is also the most fun to play.

Toughest is the hill. Back to the overhead smooth-scrolling for muddy pits, slippery logs over water, nets and water cannon trying to knock you over.

The variety of events, and the assault course in particular, is suggestive of Combat School, but Run the Gauntlet is better presented graphically.

OTHER FORMATS

Commodore and CPC versions for Easter (£9.99 cass, £14.99 disk) Amiga and ST versions available in April (£24.99 and £19.99 respectively)

"One of the best multi-event games for a long while"

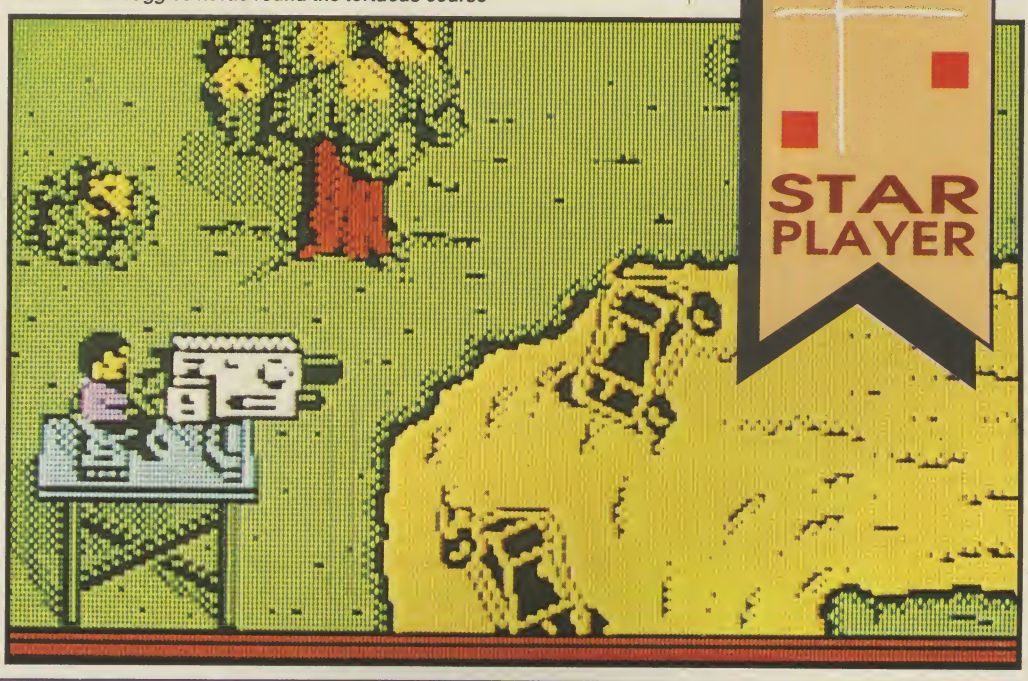
SPECTRUM 88%

£8.99 cass
£14.99 disk

Detailed vehicles and backgrounds with colour borders makes for a lively looking game and its technical excellence combined with the wide range of playable sections makes this one of the best multi-event games for a long while.

The Games machine STAR PLAYER

Track racing section — the well animated graphics neatly avoid colour clash as the buggies hurtle round the tortuous course



VERSION UPDATE

RAMPAGE

Sega/Bally Midway ● Sega: cartridge £24.95

Choose your monster weapon (ahem):George the Ape, Lizzie the Lizard or Ralph the Wolf. Prepare to climb and demolish countless city skyscrapers, pull helicopters from the sky, eat people live and generally make a nuisance of yourself in Sega's own version of their coin-op hit Rampage.

Rampage is played either by a single player, controlling one beast, or two simultaneous players. Danger comes from tanks, 'copters, dynamite lobbers, energy-draining pools of water, and assaults from fellow giant monsters. Energy is regained by grabbing people from skyscraper windows or from the street and gobbling them.



Similar to previous home-computer conversions, the Sega version lacks variety. From scene to scene and city to city, the buildings are in the same style with only a few minor changes in shape and size. And there are no new features introduced as you progress though the fifty levels.

The humorous cartoon-like characters of George, Lizzie and Ralph are undoubtedly the best element in Rampage, but they can't make up for the lack of variety in the rest of the graphics. 25 is too high a price to pay for a game with such limited interest, even with the amusment of two-players.

SEGA: OVERALL 58%



PRESS ANY KEY

Is the Asteroids idea just too old?

BLASTEROIDS

Imageworks



Atari have been looking to their past successes for new coin-ops, and *Blasteroids* continues the pattern. As in *Galaga `88* the gameplay might be crusty but you can't beat a bit of nostalgia.

Blasteroids has as mundane a plot as *Asteroids*. The green multi-tentacled alien Mukor won't come out to play until you've cleared each sector in a galaxy full of asteroids. Yes, this is where the *Asteroids* gameplay comes in as one or two spaceships take part in the mass slaughter of innocent hunks of rock. But these are no ordinary spaceships, they can transform at any time into any of three types of asteroid-killing ship each with its own strengths and weaknesses.

No revamp of a good old fashioned shoot-'em-up would be worth its salt without those obligatory little extras. *Blasteroids* is no different as certain asteroids reveal ship equipment, weapons and energy crystals when blown to kingdom come. The equipment to bolt onto your ship includes speed boosters, extra firepower, a larger fuel capacity and the Ripstar, a gem of a weapon causing your ship to spin wildly launching bullets all over the place.

For two players willing to co-operate, the two ships can be combined with one player steering the combination craft, the other unleashing the death and destruction.

On the enemy front it's not just dumb spinning asteroids. There are five classes of rock spinning through space including homing rocks, rocks with wriggly, energy-draining space leeches inside and patrolling spaceships.

Eradicate all space junk from a sector and it's off to the map screen to warp to the next. Once defeated Mukor retreats but soon reappears in the next of the several galaxies per level.

Good as this conversion might be it is still based on a very dull original idea. The gameplay is all there (if a little easier than the first time round) and the two player option is great fun to use. Together with four skill levels to provide constant variation and ever-tricky inertia to master it isn't *Asteroids* but (and it's a big but) it's an unsophisticated and ultimately limited game.

"Good as this conversion might be it is still based on a very dull original idea"

AMIGA 71%

£24.99

Digitised pictures are always attractive but even with backdrops faithful to the arcade machine Blasteroids is not a game to push forward the boundaries of software. With a slight loss of high definition comes lack of ship detail although the overall effect is of a very slick game. The music and effects are generally below average — faithful yes, but also annoyingly repetitive.

SPECTRUM 61%

cass: £9.99
disk: £14.99

Emulating digitised graphics can be a problem on the Spectrum and Blasteroids tries bravely, succeeding in part with the asteroids themselves but failing with the confused and overly dull backdrops. The professional presentation is degraded slightly by attribute clash but in play there's little to distinguish between Spectrum and 16-bit versions

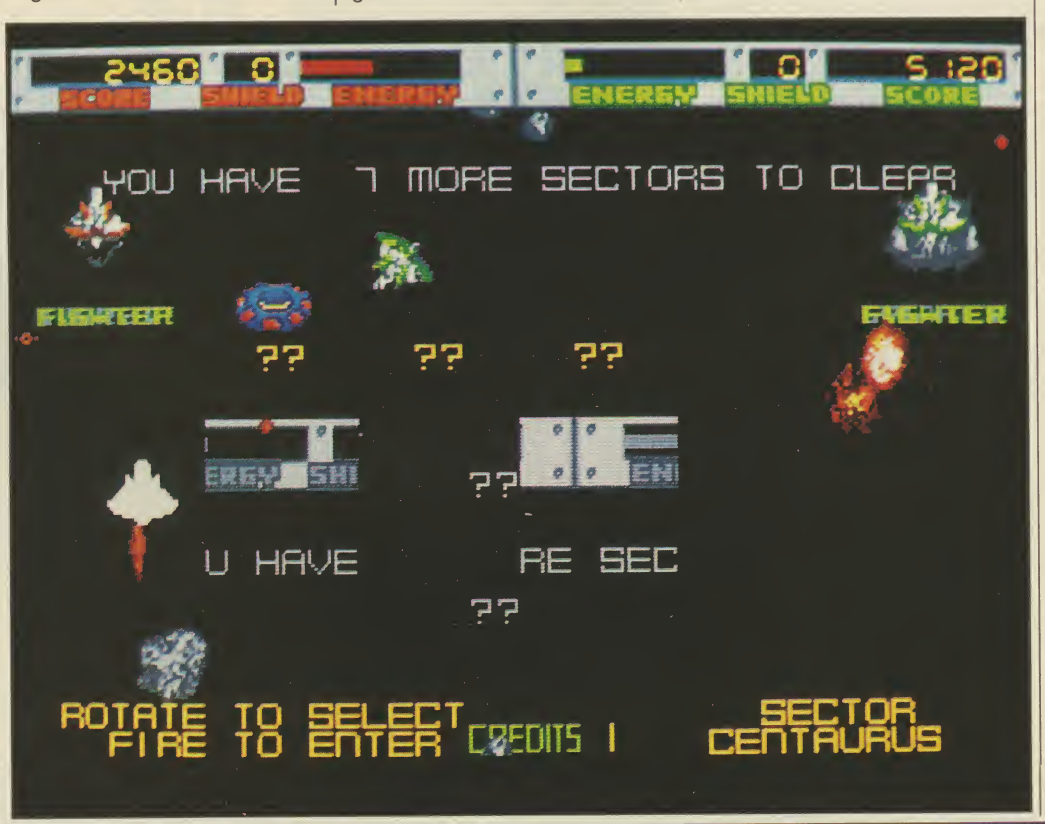
ATARI ST 70%

£19.99

The limitation of 16 colours on screen lead to some odd looking backdrops but the asteriods, spaceships and collectable items are close to the arcade. Other than this and the weak sound effects *Blasteroids* on the ST toes the line in being a direct clone of the Amiga version

OTHER FORMATS

Amstrad and MSX versions are expected in the near future (both £9.99 on cassette and £14.99 diskette) along with a Commodore 64/128 version (cassette £9.99 and £12.99 diskette).



It's not just dumb asteroids — there are five classes of space rock to blast to smithereens

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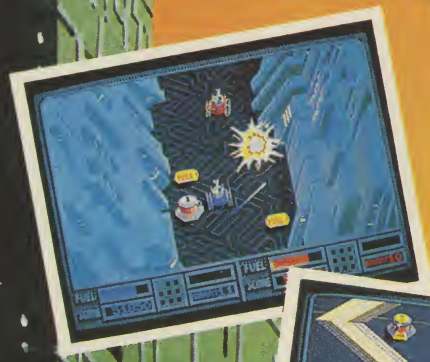
See a demo of the first Tengen title at your local store now!!

Turn the page for a glimpse into the future . . .

TENGEN

*Tengen is a subsidiary of Atari Games Corporation

VINDI











Vindicators is a faithful conversion of the popular Coin-Op Arcade hit.

The year is 2525. An armada of fourteen alien space stations approach Earth. Its posture, hostile. Long-range scanners indicate that a direct attack would be useless against the vessels' heavy exterior armor. The only way to destroy the invading force is to infiltrate the enemy with your SR-88 Strategic Battle Tanks, better known as Vindicators.

For one or two gamers,

TENGEN

The New Name in Coin-Op Conversions.

VINDICATORS

Vindicators provides incredible action and graphics. It challenges you to negotiate each station's heavily guarded corridors, and locate and destroy its control room.

Besides avoiding and destroying enemy tanks and bunkers, you must constantly replenish your tank's fuel supply with fuel canisters. Throughout the many levels of each station. Special features enable your tank to gain enhanced speed, shot range, shot power, force field or even "Smart shots"

After all the enemy stations have been destroyed, you must still face the evil Emperor of the alien empire. Win and the world cheers with you. Lose and kiss it goodbye.



	Cass	Disk
Spectrum	£9.99	£14.99
Commodore	£9.99	£12.99
Amstrad	£9.99	£14.99
Amiga		£19.99
Atari ST		£19.99

Distributed by DOMARK

Ferry House, Lacy Road, London SW15 1PR 01-780-2224

Programmed by Consult Computer Systems.

© 1988 TENGEN

On the high seas of space

COSMIC PIRATE

Outlaw

Programmed by former console specialists **Zippo Games**, *Cosmic Pirate* opens with a colourful and lively introductory sequence, featuring a Jolly Roger flag ascending spaceward while a sea shanty turns high-tech. Logos scroll by, and then the well-implemented selection system gets you into training simulators or the challenging blasting missions of the future's space raiders who prey on planet-hopping lorry drivers in this fast-moving shoot-'em-up on Palace's Outlaw label.

As a cosmic pirate, you perform daring and dangerous raids for modest rewards, a man who cheated the death sentence to roam the galaxy and find his fortune.

Missions are selected using codes, with letters indicating their difficulty from A (easiest) to Z (hardest). Once a mission has been selected and a deposit automatically deducted from your account by The Council — an illegal organistation that gives pirates flightpath data of vulnerable spacetrucks for a hefty fee — you are free to launch.

Hyperspacing to the approximate location of the target spacetruck, you use beacons to hop between galaxy subsectors.

But finding a beacon is less than half the problem, as a toll must be paid before the hyperspace jump can be made. Credits to pay the toll are earned by destroying hostile craft, detected with a small radar scanner at the top of the screen. Coloured pods are often released from the explosions and when collected have various effects (see box).

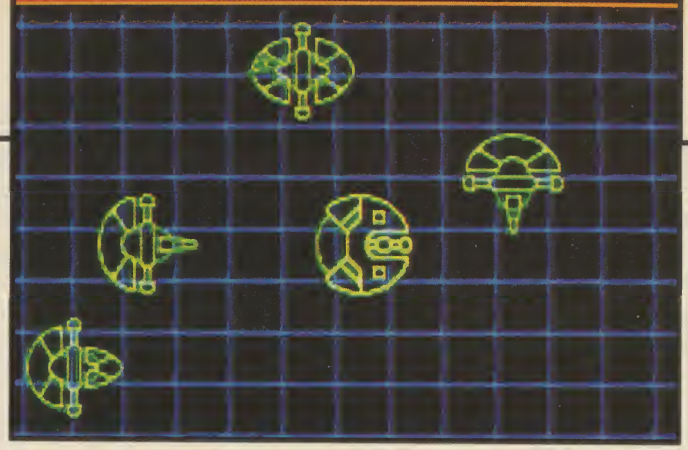
Space pirates are ecologically desirable — they rid the spacelanes of hedgehog-squashing space truckers

When you reach a sector, an icon guides you to the Spacetruck, which is deactivated by repeated hits. Your ship then links up to the truck to tow it back through hyperspace, shooting small craft on the way to earn extra credits.

On completing a sector, a map of the galactic area is displayed so you can choose your next hyperspace destination. A mission ends when the ship's damage meter reaches maximum.

Cosmic Pirate is tricky. Even some of the frequently-encountered enemies require several hits to eliminate while they barge you and fire some difficult-to-avoid missiles. Things get frantic when you've got a badly-damaged ship and yet you STILL need another 500 credits before the jump into hyperspace can be made... but it's all part of the fun.

Tactics are necessary to plot long paths across the galaxy map, and these — plus the ability to upgrade your ship's capabilities — turn *Cosmic Pirate* into more than just an exciting space shoot-'em-up.



Yorkie Bars in space are no substitute for a trucker without a weapon

OTHER FORMATS

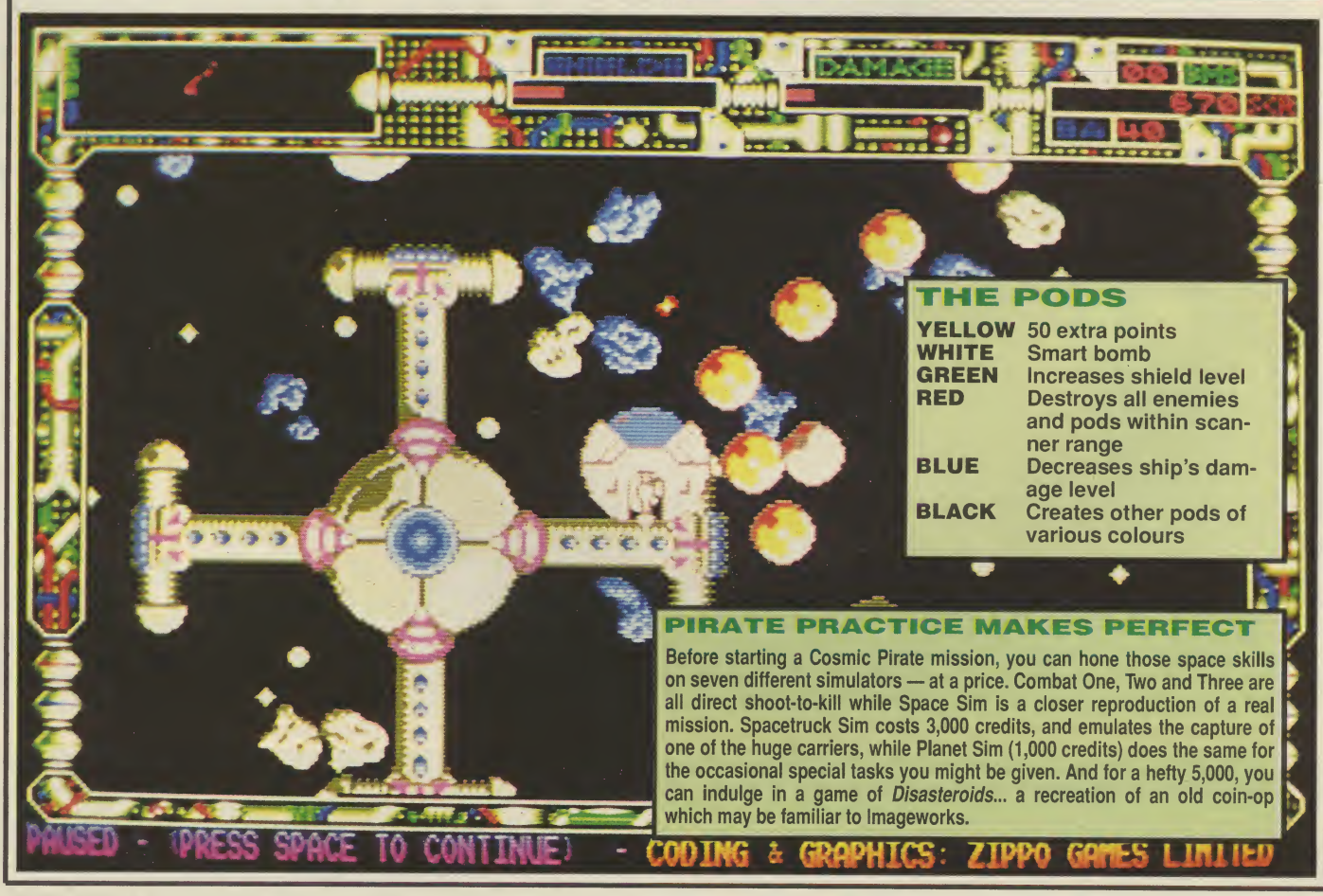
Available soon, ST version is £19.99. C64, Spectrum and CPC in the summer.

AMIGA 82%

£19.99

Never mind the sound (middle-of-the-road effects) — feel the graphics! The realistic representation of a computer's function keys on the option screens is just one indication of the programmers' attention to detail. Excitement would have been added by speeding up the sedately scrolling stars, too — but as there's plenty going on, it's no great loss in this fine shoot-'em-up.

"More than just an exciting shoot-'em-up"



THE PODS

YELLOW	50 extra points
WHITE	Smart bomb
GREEN	Increases shield level
RED	Destroys all enemies and pods within scanner range
BLUE	Decreases ship's damage level
BLACK	Creates other pods of various colours

PIRATE PRACTICE MAKES PERFECT

Before starting a Cosmic Pirate mission, you can hone those space skills on seven different simulators — at a price. Combat One, Two and Three are all direct shoot-to-kill while Space Sim is a closer reproduction of a real mission. Spacetruck Sim costs 3,000 credits, and emulates the capture of one of the huge carriers, while Planet Sim (1,000 credits) does the same for the occasional special tasks you might be given. And for a hefty 5,000, you can indulge in a game of *Disasteroids*... a recreation of an old coin-op which may be familiar to Imageworks.

Pipes of pieces

PIPELINE

Entertainment International/Titus

The games industry is a strangely fickle beast. The latest mega horizontally-scrolling shoot-'em-up with 24 types of add-on weapons or hideously complex 1000 location arcade adventure may be what the gaming public flock to buy, but todays blockbuster soon becomes a dust-gathering has been. Although quite rare, puzzle games are often the sort to keep you coming back to time and time again. Take *Pipeline*, for example..

The objective, as in all the best games, is very simple: construct a pipeline, of a minimum number of sections, within a time limit.

The pieces of pipeline are laid on a 9x7 grid of square tiles connected from a set starting position with the use of a cursor or joystick. Two columns (blue- and red) lie to either side of the grid, each containing vertical, horizontal, cross-shaped and right-angled pipe segments. With the cursor on the desired tile and the fire button held down, pushing left drops the top piece from the blue column onto the grid; pushing right selects the bottom piece from the red column.

If niether column has a connectable piece directly available, one of a limited number of passesis used. Holding the fire button while pushing the joystick up erases the current pipe segment from the blue column, giving access to the next one in the line, and pushing down does the same for the red column. If a piece of pipeline is incorrectly positioned, a limited number of bombs are available to destroy it, leaving the tile free for a better choice of pipe.

The minimum number of pieces needed to make up the pipeline varies with the level, and difficulty is also increased with the inclusion of extra features. Squares occupied by a pattern — have to be avoided or bombed, some pipe pieces only operate in one direction (indicated by an arrow), and a destination square has to be reached. As recompense, some bonus pieces are already positioned, giving an extra 500 points if used as part of a pipeline.

In comparison to many games, Pipelines control method is a little complex and awkward to get used to, but once got to terms with presents no real problems. While the gameplay itself is remarkably simple, it is also fiendishly addictive.

Even after practice the first level — where you have the freedom of the entire grid and only have to lay a minimum of 17 pipe pieces — can prove tricky so the later levels are a huge challenge. Passwords can be used for direct access to these levels, but you'll need many hours of play before you feel brave enough to tackle them!

ATARI ST **83%**

£19.99

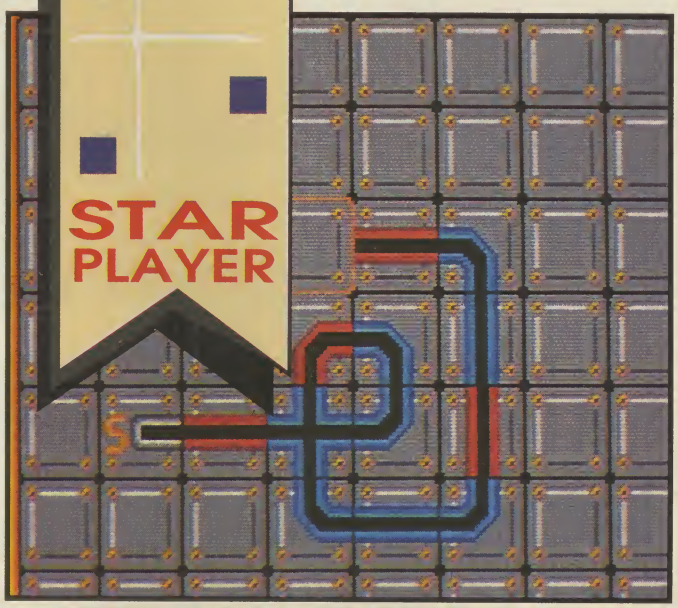
For this type of game visual clarity is more important than fancy garphics and Pipeline on the ST fulfils this criteria with cleanly defined pipe segments and tiles. The sound effects are functional and a pleasant jingle rounds the game off neatly.

OTHER FORMATS

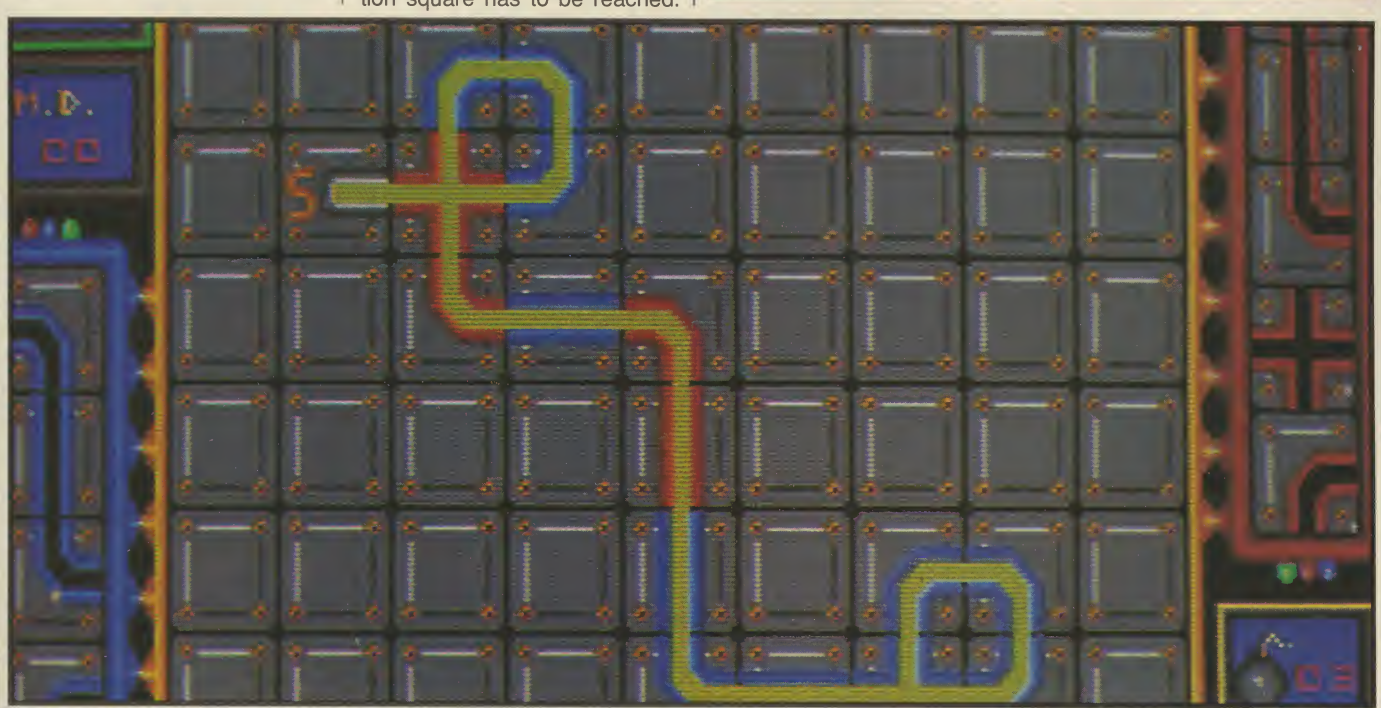
The Amiga version (£19.99) will be available shortly, while C64, Amstrad CPC (both £9.99 cassette, £14.99 disk), and Spectrum (£8.99) are in the pipeline (groan) for release early summer.

The Games machine

STAR PLAYER



"The objective, as in all the best games, is very simple"



A puzzle game of great ingenuity and addictivity, Pipeline ***is simple in concept, fiendishly challenging in play, and attractive to look at***



Through persistence to the stars

FEDERATION OF FREE TRADERS

Gremlin Graphics

Potentially Gremlin's biggest title for years, *Federation Of Free Traders* (FOFT) has been in development for nearly two years. Drawing creative sustenance from *Elite*, the science fiction RPG *Traveler* and a host of other sources, *3D-Galax* programmer **Paul Blythe**'s confection finally leaves its dry dock. The question is — can it beat *Elite*?

With the colonisation of the universe came crime. Pirate ships started to appear and attacked colony ships, Earth responded with a space police force, but maintaining this and supporting the colonies proved too much of a financial burden.

Eventually Earth severed all links and the universe became lawless. With the colonies on the verge of chaos, a group of pilots formed the Federation of Free Traders (FOFT). Owing allegiance to no-one, the federation set out to protect colony ships from pirates and perform other tasks around the galaxy — at a price.

Now the federation is spread throughout the galaxy and the threat of piracy is diminishing. Indeed, the time is ripe for you, a fresh-faced, budding star pilot to join FOFT and make a living in the universe.

Galnetspeak

Starting in the relatively safe haven of the Iles system space station, you have no more than a basic Hartley Mark I fighter and 150 credits to your name. All space stations have a computer network available to star pilots — known as Galnet, which is used for trading, information access and general communication.

One of *FOFT*'s much-touted features is the 'computer language' within Galnet. A crossbreed mixture of BASIC and Assembly Language, using SIMPLE it allows you to while away hours writing programs or downloading from fellow pilots a selection of games to play. Playing no real part in the game, the purpose of its inclusion is highly questionable.

Trading follows a similar pattern to *Elite*, with a wide variety of agricultural, industrial and miscellaneous stocks on the open market. Prices change constantly but real profits lie in black market goods which can only be obtained by going out into space.

If you find a lèss-than-virtuous trader you can strike up a conversation. All communication is based around AI-style keyword recognition. An original touch but it does tend to get repetitive due to limited vocabulary.

With the profits made from sales extra equipment can be bought. Improved stardrives, lasers, missiles, shields, extra ammunition and other offence/defence system are on offer and the scope for upgrading your ship is tremendous — the sheer number of items easily beating those of *Elite*.

The real way to get rich quick is to go on any of 15 missions given by FOFT HQ. Increasing in difficulty as you progress through the eight ranks, FOFT require you to search and destroy, investigate pirate activities, res-



Stunning graphics, great ideas, but sadly flawed

cue people from wrecked ships, deliver messages and so on.

FOFT has a *Mercernary*-style planetfall sequence where you overfly or land on solid 3-D planets avoiding hostile laser fire.

Except for certain missions this slow but impressive effect is unnecessary to the gameplay and remains a much underused feature.

Pirates too many

Space flight and combat follows *Elite*'s style, with galactic and solar system hyperspaces, local jumps, docking with space stations and laser/missile combat all possible. A unique touch is the 3-D galactic map for navigation, tricky to use with its extra dimension but impressive nonetheless.

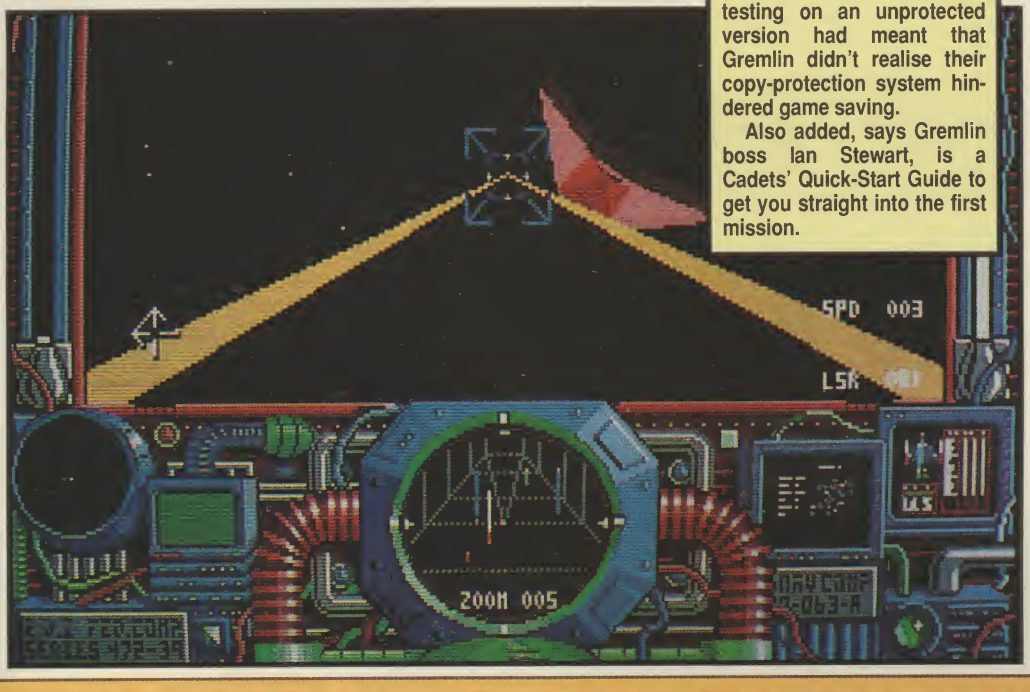
What lets the game down in a major way is that local jumps are stopped if pirates are near. A similar idea to *Elite*, this would be fine if there weren't so many of the pirates to begin with. At each jump you're expected to wade through hordes of them which quickly becomes very tiresome. In fact, this isn't merely a let down, for *FOFT*, it's a catastrophe. It completely spoils what could have been the best game ever and makes *FOFT* a dubious purchase. Even with its welcome features, the £30 price tag can't be justified at all.

STOP PRESS!

In late February, Gremlin withdrew all copies of *FOFT* for minor changes — but the big problem stayed in.

A few bugs were corrected, according to programmer Paul Blythe, and it's now easier to save to disk. Game-testing on an unprotected version had meant that Gremlin didn't realise their copy-protection system hindered game saving.

Also added, says Gremlin boss Ian Stewart, is a Cadets' Quick-Start Guide to get you straight into the first mission.



Getting rid of pirate ships is at the root of FOFT*'s problem — there are too many of them*

ATARI ST **44%**

£29.99

FOFT is certainly a glossy game with a great attract mode, fast moving solid 3-D graphics of spacecraft and a music disk with 19 classical tunes on it. The planet fall sequence is a little slow but considering the scope of the game this isn't surprising. The bad news is that the manual is atrocious, saying little about the intricacies of the game and being altogether too vague. At 26 pages long it's woefully inadequate.

OTHER FORMATS

An Amiga version is planned for the end of March priced at £29.99 with a PC version under consideration.

"Even with its welcome features the £30 price tag can't be justified at all"

THE ONE BIG PROBLEM WITH FOFT

On paper, *FOFT* looks like the best space game ever — an immense improvement on *Elite* in realism, depth, scope and sheer size. Just look at the huge number of ships to meet and missions to run.

But in practice, things are nowhere near so rosy — and ironically, it's all the fault of excessive realism. For the sheer number of ships going about their own business in the *FOFT* universe slows the game down till it's virtually unplayable.

Once you've hyperspaced into a system, it should be a simple matter of performing local jumps toward the space station/planet/target/etc. But, as in *Elite*, local jumps (called Timeskips) are halted if a ship is in the vicinity. Only by destroying the intruder, or letting it go out of range, can you continue.

This feature works fine in *Elite*, where ships are few and far between, but in *FOFT* it all goes wild, and you've only been in a system for a few seconds when the first of many ships appears. (Inexplicably, the scene-setting title sequence states that in a climactic battle FOFT pilots 'killed most of the pirates'— yet FOFT space is literally jam-packed with ships!)

From here on, it's a very long haul as endless spaceships come past, and sometimes attack — a green-gilled Cadet wouldn't be in a good situation with one laser and two missiles on board.

And unless you fancy taking on several ships per jump, the only sensible option is to wait for the enemies to leave the area.

This is where the problem really rears its ugly head. The waiting time varies, but after many plays we reckon it's an average of ten seconds for each area to become safe, multiplied by about 50 (the average number of jumps needed to reach a destination) — which adds up to more than eight minutes!



Multiply this again by the number of planets and galaxies in *FOFT*, and you could be talking **HOURS** of wasted time, holding down the Timeskip key with one hand and twiddling the other thumb. In fact, visiting all 8 million planets — not that you'd want to — would take approximately 127 years!

What it all comes down to is that the number of ships has been wrongly set.

FOFT programmer Paul Blythe argues that 'it's a random-number determination'— but perhaps it's random in the wrong range.

Defending himself, Blythe said the game 'is hard, yes, but that's life. It's not meant to be easy... our game-testers got used to it and were soon getting places.' It seems Gremlin's game-testers have the patience of the immortals, and that's a very rare quality.

Planes and jeeps and bombs

SILKWORM

The Sales Curve (publisher to be announced)

Tecmo's *Silkworm* coin-op wasn't exactly the biggest licence deal going, but it had in it enough destruction and mayhem to provide someone with an exciting computer conversion and The Sales Curve have taken the plunge in commendable style. Dictators are running round your homeland with their entire air force and army. Just as things look impossibly bleak, two warriors in a helicopter and a jeep enter the fray in an attempt to penetrate the enemy defences and destroy the reactor at the heart of their fortress.

Like most shoot-'em-ups the plot is always of minor importance — and *Silkworm* is the same. After all when do horizontally scrolling 11-levelled shoot-'em-ups ever need a plot? The dictators seem to be rather partial towards helicopters as the vast bulk of their force seems to be made up of hovering choppers of all shapes and sizes. Helicopters aren't the only aerial threat, however. Jet fighters, rockets and both nuclear and SAM missiles fly around posing severe problems. The enemy ground forces are just as bad with robots, tanks and anti-aircraft missile silos spewing forth bullets and white hot death at every opportunity.

The action continues through to the section end where end-of-level opponents alternate between a major helicopter and a missile-firing tank. Both are pretty awesome opponents, but with a few well-aimed shots they can easily be reduced to so much scrap metal. Double cannon, speed-ups, shields and smart bombs are on hand to help out when the going gets tough.

Harmonious play

Rather than have two similar vehicles blasting their way through each level, Silkworm adopts a *Last Duel* style of gameplay with both players controlling markedly different weapons of destruction. One takes to the skies in an attack helicopter, the other drives a jeep, which has a neat line in leaping over obstacles, across the land. The jeep may be restricted to only momentary leaps off the ground, but it also has a cannon for firing in multiple directions including backwards.

In *Silkworm* only harmonious teamwork can see the players through each level of sheer mayhem. That and a considerable amount of courage, lives





Last Dual-*style two-player action sees one player in charge of a jeep and the other flying a helicopter. Attack from ground-based SAMs (below), phases you not a bit — just blast the enemy choppers and get the hell out*



The helicopter fights off a vicious tank attack as enemies arrive by the dozen

AMIGA 86%

Clever use of greens and greys gives Silkworm **an authentic military atmosphere, which is reinforced by the non-stop destruction. Graphically the sprites may be small but the have a wealth of variety and the attention to detail is first class. Sound effects add to the atmosphere.**

and continue-plays as well.

In fact teamwork is more than an advantage, it's a necessity — the onslaught of enemy aircraft, tanks and missiles is constant and at times the screen is literally jam-packed with enemy firepower. The action starts off chaotic and doesn't get any easier.

Luckily both vehicles are fast moving although the helicopter has a better time of it in being able to fly around most of the screen. The jeep's restricted mobility puts you at quite a disadvantage on later levels but through harmonious teamwork it's possible to succeed.

Teamwork games always work well and *Silkworm* works a lot better than most with two different craft requiring separate game tactics in order to succeed, and even in one-player mode *Silkworm* plays extremely well. The vast number of enemy opponents quickly get the adrenalin pumping, the addictiveness and playability levels are high and the action never stops.

Silkworm may not be the biggest of licenses but this shouldn't stop it from becoming a much deserved success.

ATARI ST 83%

Horizontal scrolling is a shade rougher and the sound predictably weak in comparison. While graphically not quite as sharply defined as on the Amiga and losing out in the number of colours available, Silkworm **is a great ST blast and even better in two player mode.**

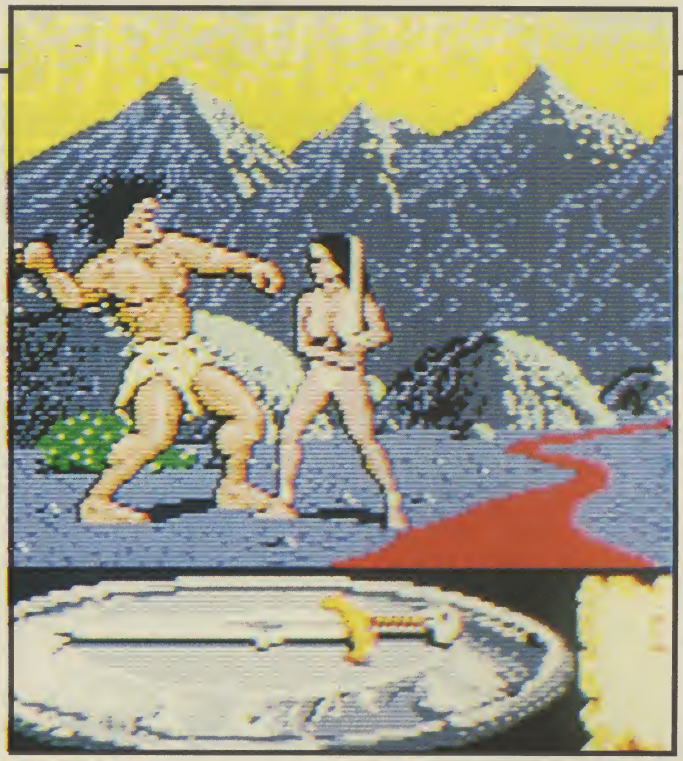
OTHER FORMATS

Spectrum, Amstrad and Commodore 64/128 versions are planned for April.

HANGING FIRE

At the time of writing The Sales Curve had yet to finalise negotiations as to who will be publishing *Silkworm*. Prices of all versions are also unconfirmed but expect normal pricing when the game is released.

"The vast number of enemy opponents quickly get the adrenalin pumping"



VERSION UPDATE

BARBARIAN II

Palace ST: £19.99

FROM the very beginning, impressive sampled sound bodes well for this first class conversion.

Play either busty Mariana (rescued from Drax's cluthes in the original *Barbarian*) or the hunky eponymous hero armed accordingly with sword or axe and adventure through four maze-like levels of some 70-plus screens of bizarre creatures.

The most remarkable feature of the ST version is its crystal-clear sampled effects, but the graphics are good too. The ST's resolution has been used to give a cleaner, more precise edge to the C64's original sprites and animation is excellent.

OVERALL 82%
C64/128: TGM009 94%

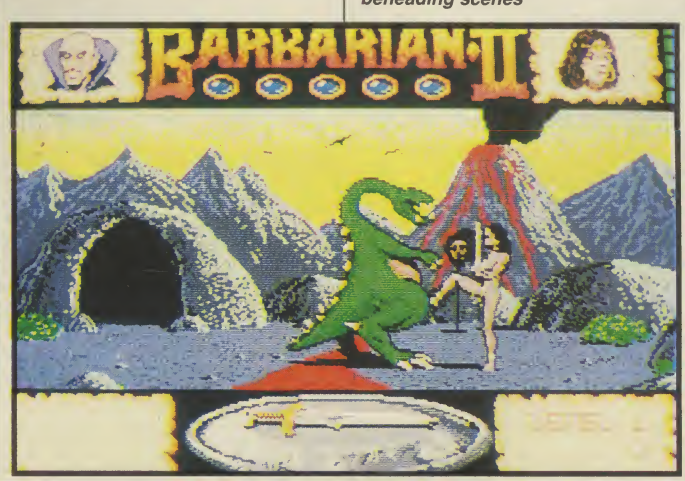
16-BIT NEWS FLASH!

Amiga Barbarian II has been delayed till April/May —because programmer Richard Leinfellner was bogged down working on the Amiga Shoot-'Em-Up Construction Kit (on Palace's Outlaw label)!

But a new programmer has been found for the Amiga version, which will have 'a few more colours, slightly nicer definition and a few more sampled sounds', according to Palace boss Pete Stone.

PC users can get barbaric in April too. And back witl. the 8-bits, CPC release is expected for late March.

A cleaner, more spritely version on the Atari ST — better for all those beheading scenes



PRESS ANY KEY

BRINGING HOME THE CH



LAST DUEL™ The Golden Tribe of BACULA have overrun the twin planet MU and taken captive the beautiful Princess SHEETA. Few warriors survive and only one retains the courage and willpower to face the awesome task ahead. Battle your way through six enemy occupied territories laden with traps, terror and gargantuan defenders, the like of which no earthly body has ever set eyes upon. Your neutron powered car and galactic hoverplane provide speed and firepower, your nerve and skill offer the only hope of freedom for your beloved princess.

CBM 64/128 *cassette/disk* · **Spectrum 48/128K** *cassette/disk* · **Amstrad CPC** *cassette/disk* · **Amiga** *disk* · **Atari ST** *disk*

CHALLENGE OF THE ARCADE



L.E.D. STORM™

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***L.E.D. STORM*™** Tear along the highways of the sky, Kamikaze opponents barring your way, skyjack terrorists blasting your path. Fear not, lazer powered turbos give you unbelievable acceleration and the power to fly, and when space is tight, transform at the speed of light into a, nuclear powered jet bike. An aerial extravaganza of race skills, daredevil pilotry and fearless road warring in nine distinct landscapes.

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Screen shots from various systems

CAPCOM™

GIANTS OF THE VIDEO GAMES INDUSTRY

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Dull driving from Imagine

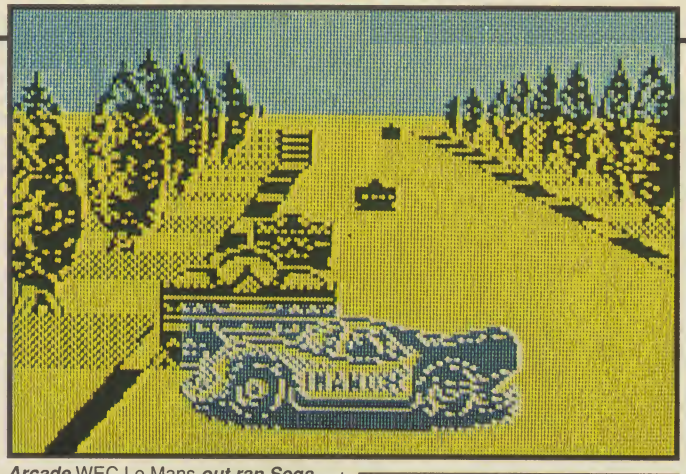
WEC LE MANS

Imagine Software

Despite wilder hydraulics than Sega's *Out Run* and being a technically and graphcally better game, Konami's 1986 arcade release *WEC Le Mans* flopped in the arcades. Punters wanted to race *Out Run*'s sexy Testarossas, not mess about with humdrum Porsches. Kicking off with 8-bit versions, Imagine now try and redress the balance in the home.

The French race upon which this game is based is an all-day-all-night affair, but on the computer you're only expected to compete with other drivers against an allotted time limit around four laps with three checkpoints per lap.

Running into the other, often devious, drivers can see your car spinning off the track or flipping end over end, and it's in the extravagance of the graphics that a coin-op can often disguise shallow gameplay. Needless to say, the 8-bit conversions suffer in comparison to the original, and *WEC Le Mans* fails, ironically, through remaining too faithful to the coin-op.



Arcade WEC Le Mans ***out ran Sega, but it's not so hot at home***

C64/128 14%

cass £9.95
disk £14.95

Unlike the Spectrum version, the Commodore game is awful. The car sprite is nicely detailed, but you can forget everything else. The striped track often staggers backward, roadside graphics are minimal and the sound effects inconsistent. Avoid it.

SPECTRUM 61%

cass £9.95
disk £14.95

Excellent presentation and superbly detailed graphics fail to disguise the lack of visual variation as you progress. Sad, because it kills long-term playability.

OTHER FORMATS

Also available for the Amstrad (£9.99 cass, £14.95 disk), ST and Amiga versions will be out for Easter at £19.95 and £24.95 respectively.

"WEC Le Mans fails, ironically, through remaining too faithful to the coin-op"

Two heads are better than one

CAPTAIN FIZZ MEETS THE BLASTER-TRONS

Psyclapse

Addictive, fiendish and relentless action are words used to describe this game by its producers. But we wonder whether the authors of *Menace* (TGM013) and the brilliant *Baal* (TGM015) have been playing the same game they sent us to review.

Captain Fizz has been cloned and given a new identity — that of intergalactic stormtrooper — and a headache — the Blaster-Trons have seized space station Icarus and sent it plunging into the sun. To avert catastrophe, Fizz and Fizz must alter the flightpath held in the station's master computer. The trick is to get all the way there from a distant cargo bay despite prejudicial interference from gun-toting Blaster-Trons.

Working best with two players, the screen is split horizontally in half for each character. Gameplay is unhappily standard: flick-screen corridors, locked doors, energy barriers, colour-coded key cards, collectable armour, failing health points, energy restorers and so on. A split-screen Gauntlet with a few yawn-inducing enemies and some puzzles is not what today's gamers want. This is quite a surprise from Psyclapse.



Split-screen action isn't new, but the level of dullness is

ATARI ST 38%

£14.95

Disappointingly small, plain sprites feature in simple bas-relief mazes where flick-screen fails because of the reduced area. And sprites flicker badly where several are present. Why the sound effects aren't smapled is another mystery of this Psyclapse collapse.

OTHER FORMATS

Work on PC and C64 games and — oddly for Psyclapse — a Spectrum version is under way.

"A split-screen Gauntlet with a few yawn-inspiring enemies"

AMIGA 39%

£14.95

The Amiga graphics are identical to the ST's — even down to the sprite flicker — but at least a few sampled sounds have been put in and the house-style title music is interesting. The relatively low price tag is some compensation for unambitious programming, too.

Paradise lost, vengeance found

DENARIS

US Gold

Far off in the depths of space lies the once-beautiful world of Denaris. Now ruled by alien invaders Denaris is dying under the weight of war machines churning up the ground and polluting its atmosphere and despoiling its people.

Far off in the outer rim of the galaxy a solitary star fighter picks up a distress call from the planet and, setting its engines to light speed, races to the rescue. The alien scum will pay for what they've done to Denaris with their miserable lives! Let's go kick some alien ass!

Down through the asteroids goes the trans-galactic saviour. Waves of alien fighter planes zoom up to intercept him but they're no match for our hero even though he's only got a puny laser gun to start with. As he cuts a swathe through the alien formations extra weapons come floating from the wreckage — no point not leaving 'em for the enemy.

Over Denaris things get tricky. The automatic defences are on form with laser barriers, guns, walkers and robot turrets trying to get rid of the unwelcome guest.

Laser breath

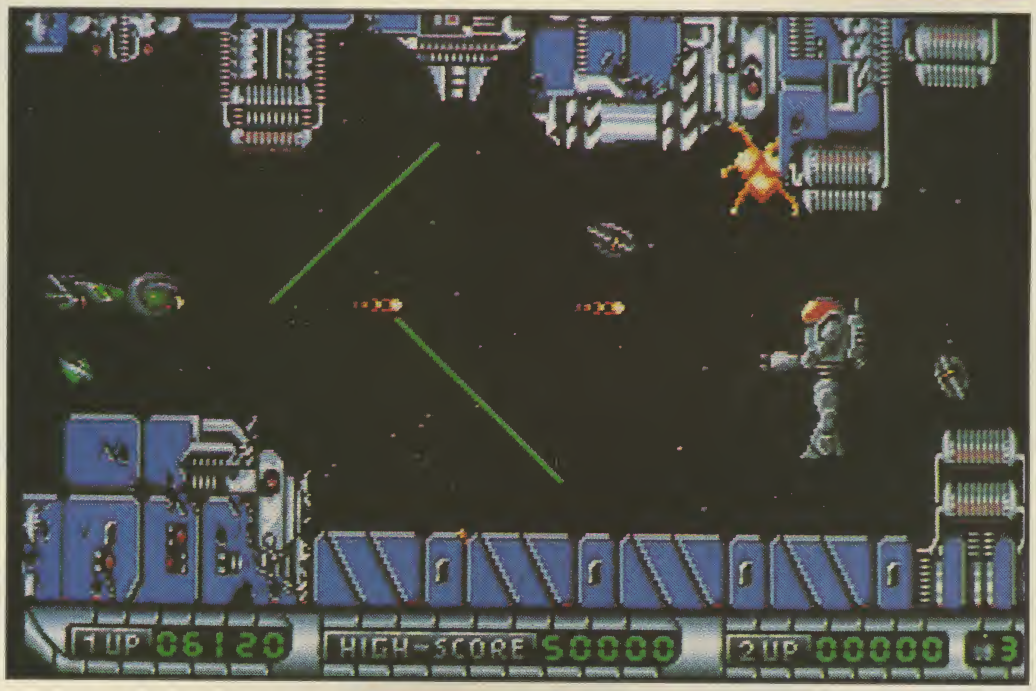
But the persevering warrior progresses through the alien waves. The carnage inceases to a crescendo heralded by the arrival of the first of the Region Guardians.

Several well placed laser bolts later the next of Denaris's ten regions loom into view and the genocide continues. As he pumps a laser bolt into a multi-tentacled extra-terrestrial and watches it explode on the surface below, the warrior smiles.

'Even if I do save the people from the aliens,' he muses, 'will there be anything left of Denaris afterwards? Who cares! Let these alien mothers eat white-hot laser death!'

But enough of the none-too--inspiring plot. Back in -well-worn horizontally scrolling shoot-'em-up territory it has to be said that *Denaris* cannot pretend originality. However, although it may draw on ideas from many other games (among them R-Type and Nemesis), this doesn't detract from the quality of its implementation.

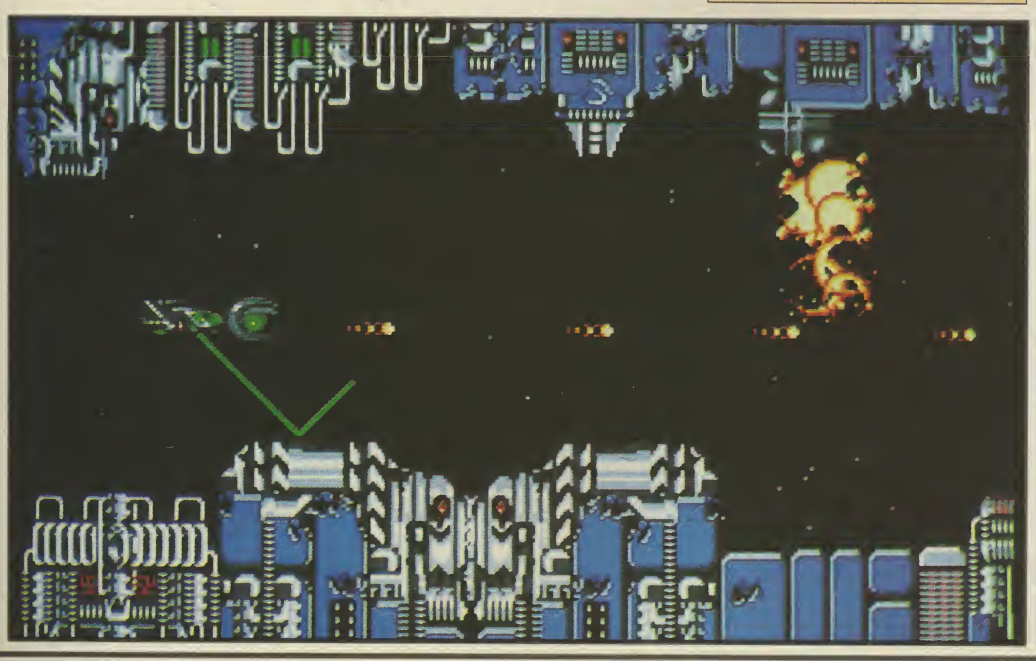
Denaris isn't for the faint of heart. Heavy reliance on the fire button isn't going to get you very far, and is in Armalyte a good deal of joystick dexterity is of equally importance and past blasting experience is essential.



They said Denaris was beautiful, but it turned out to be jam-packed with horrid aliens looking for a spot of Saturday night casual carnage

OTHER FORMATS

No other versions are currently planned.



AMIGA **83%**

£19.99

While not quite as technically impressive as on the 64, Denaris still manages to be a superb shoot-'em-up with all the trimmings.

With the Amiga's potential, Rainbow Arts have created some wonderfully detailed regions to fly through, with varied and often highly original Guardians. The great gameplay leaves the others standing.

C64/128 **87%**

cass £9.99
disk £14.99

A superp shoot-'em-up, Denaris may not beat Armalyte for polish and presentation but it's certainly up there in the higher echelons in terms of gameplay and addictiveness. Each level is sufficiently varied in style, tactics and graphics to hold your interest and, like a good book you'll want to return again and again.

"Heavy reliance on the fire button isn't going to get you very far"

PRESS ANY KEY



VERSION UPDATE

ROBOCOP

Ocean ● Amstrad cass £9.95, disk £14.95

OCEAN were unfortunate in releasing a bug-infested game before Christmas, but the matter has been put right.

Essentially a boosted Spectrum version, it has the same incredibly infectious gameplay but with markedly better colouring and presentation. Lacklustre spot effects let down the atmospheric music, but becuase of the no-mess, all-action blasting, RoboCop delivers the goods in fine style.

OVERALL 78%

SPECTRUM: TGM015 81%
C64/128: TGM015 77%

VERSION UPDATE

RASTAN

Sega/Taito
Sega: cartridge £24.95

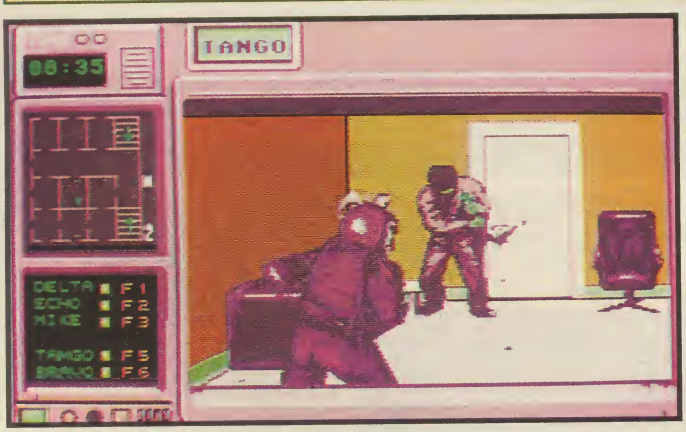
RASTAN'S out to rescue the king's daughter. Wielding a sword, he runs and jumps along a horizontally scrolling wilderness, before descending into caves or swinging over lava with the aid of handily positioned vines, slaying monsters gleefully **RASTAN'S** out to rescue the king's daughter. Wielding a sword, he runs and jumps along a horizontally scrolling wilderness, before descending into caves or swinging over lava with the aid of handily positioned vines, slaying monsters gleefully as he goes. Useful objects are sometimes left in dead monsters' wakes: maces, axes, fire sword, energy-replenishing potions and protective shields.

A disappointment from the outset, the scenery's composed of frequently repeated cells, Rastan's a dwarf and most sprites are blocky with minimal animation and garish colours.

Some pleasantly spooky music ameliorate sadly simple-bleeps and hisses. But with only one attack move and fiddly controls it's unlikely you'll want to come back to play this all that often.

SEGA: OVERALL 43%





VERSION UPDATE

LIVE AND LET DIE

Domark ● Amiga: £19.95

THE AMIGA version — surprise, surprise — looks just like the ST game, with no attempt made to improve the ported-across ST graphics. You do get a funkier remix of the James Bond theme, however. Like all other versions, fast-moving playable action is marred by a lack of depth. Although this remains one of the better Bond tie-ins, it's overpriced for what it offers.

AMIGA: OVERALL 61%

AMSTRAD: TGM 014 69%
ATARI ST: TGM04 73%
C64/128: TGM014 64%

VERSION UPDATE

HOSTAGES

Infogrames ● Amiga: £24.95, PC: £24.95

THE AMIGA version is made immediately more difficult than the ST game because your men are killed after only a couple of shots. The Amiga improves on the ST's grainy graphics, adding clarity rather than detail but still having some unsightly stipple shading. Clearer samples and a tense tune help generate atmosphere, nicely complementing this varied and amusing SAS simulation.

Worse use has been made of the PC, with only CGA and monochrome supported, so that the dark, moody scenes of the other 16-bits have been replaced by an inappropriate gaudiness

AMIGA: OVERALL 78%
PC: OVERALL 71%

ATARI ST: TGM013 77%



A trip down memory lane for arcadesters

GRADIUS

Konami

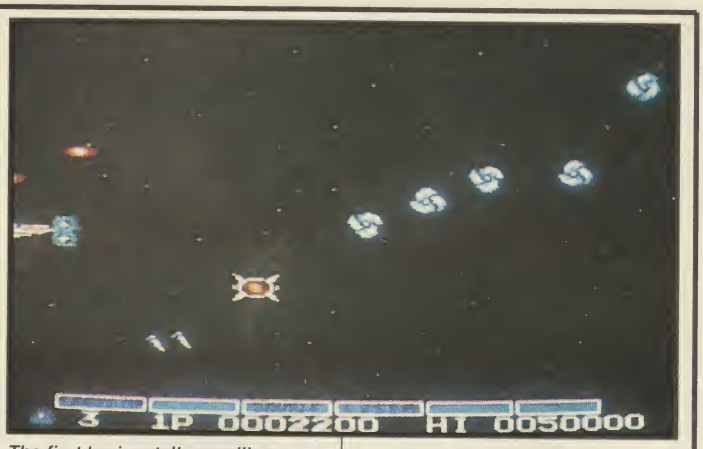
Gradius is probably better known by its coin-op name of *Nemesis*, a classic arcade game which pioneered the progressive weaponry system and proved to be the inspiration for almost every shoot-'em-up since.

Gradius follows the *Nemesis* coin-op to the letter, which is another way of saying that the scenario is dead irrelevant. The attack patterns, stage layouts and presentation mirror the arcade machine exactly and coin-pumping veterans should find most of their tactics can be used — what a comfort.

Surprisingly *Gradius* is the first horizontally scrolling shoot-'em-up to appear on the Nintendo and as a result it will take some beating.

Nintendo owners have had to wait a long time for this conversion and Konami haven't disappointed them. Watch out for even better things in the *Nemesis* series when *Salamander* is released in late '89 under the name of *Lifeforce*.

"In the transition to console Gradius has lost little of its former glory"



The first horizontally scrolling shoot-'em-up for the Nintendo won't disappoint players



Games with massive socio-economic scenarios are usually shoot-'em-ups — Gradius ***is one such***

NINTENDO 76%

cartridge: £24.95

Waves of nostalgia will bring a tear to many an arcade veteran's eyes. In the arcades Nemesis was THE classic arcade shoot-'em-up and the Nintendo conversion is little different in terms of gameplay. Undermined slightly by less than perfect graphics, a twee sountrack and a strange loss of speed on level five this is still a good blast. In the transition to console Gradius has lost little of its former glory.

VERSION UPDATE

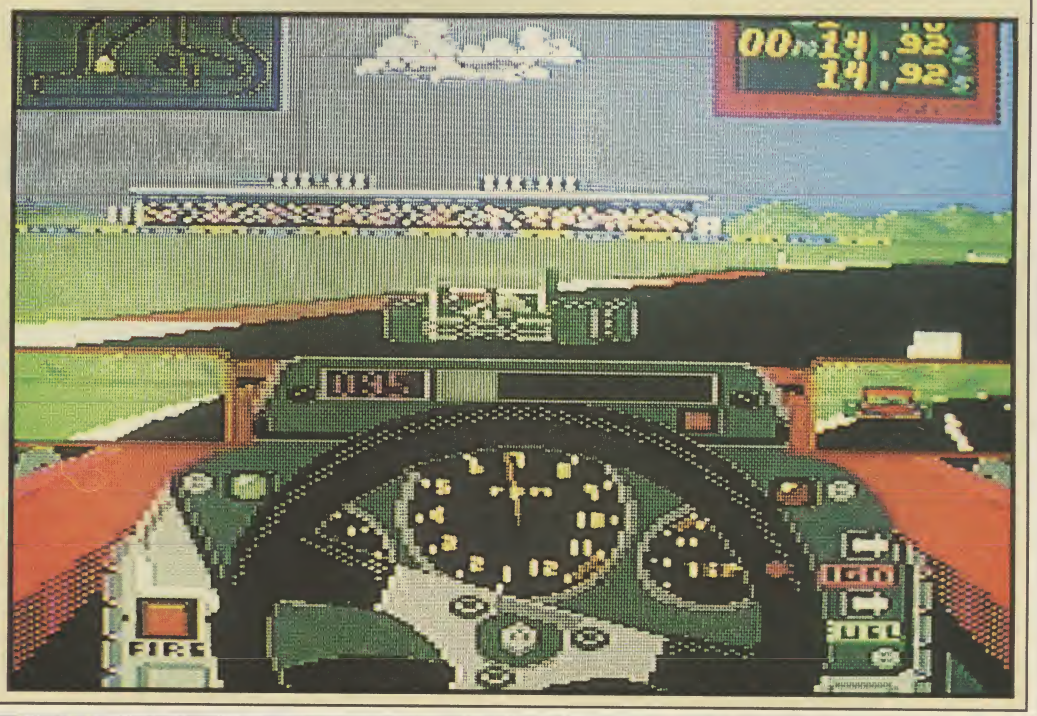
GRAND PRIX CIRCUIT

Accolade/Electronic Arts
Commodore 64/128: cass £9.95, disk £14.95

SIMPLIFIED Formula One racing is what it's all about. Differing only slightly from the PC version, *Grand Prix Circuit* has you racing round eight international tracks against nine other equally determined Formula One competitors.

Single track races and a Championship Circuit are on offer for budding Nigel Mansells with any of three types of car and five skill levels to provide a progressive challenge.

For all its smart presentation, effective illusion of movement and satisfyingly simple gameplay *Grand Prix Circuit* is let down by an acute lack of depth. The game attempts to bring together the complexity of Revs while trying to maintain the pace of an arcade racing game — a combination which rarely works at the best of times. The result is that Accolade have provided little that's not been seen before by racing game enthusiasts.



Enemy ahead! Lack of depth, however, kills this arcade-cum-strategy racing update

OVERALL 47%
IBM PC: TGM015 64%

Nazis on The Moon

ROCKET RANGER

Cinemaware/Mirrorsoft

The story so far: Europe is overrun by hordes of goose-stepping Nazis, while back in Berlin The Fuhrer is plotting to take over the whole world by devious means. The evil madman's key is the mineral lunarium, which only exists on the moon and is mined by a chain gang of women because of its effects on men. The Nazi leader intends transporting the awesome element on rockets to Earth to make loads of lunarium bombs which will reduce the IQ of males everywhere by 30%.

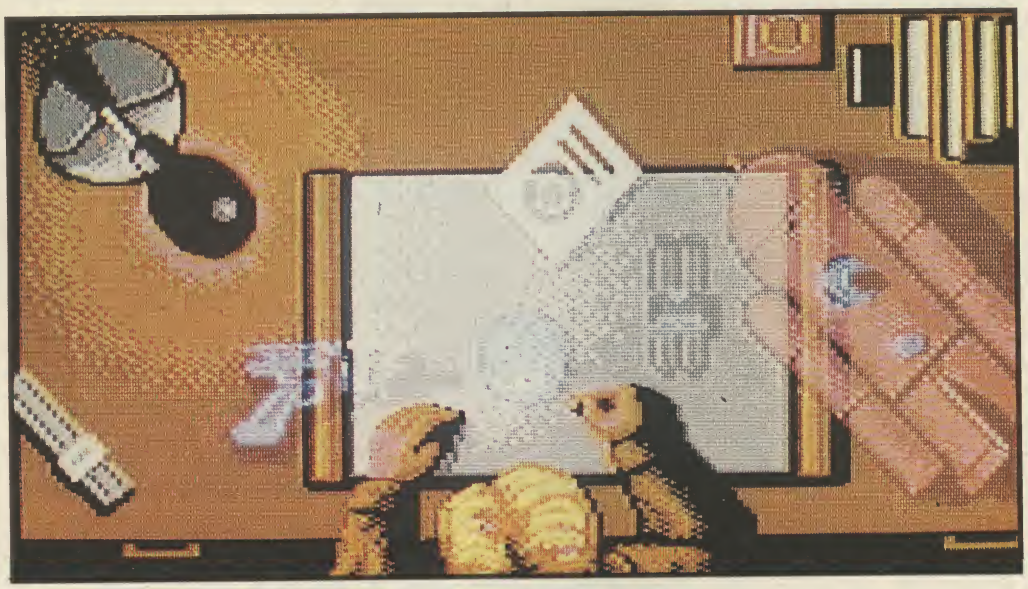
But tremble not — Rocket Ranger, a beefy bloke with a lunarium-driven power pack strapped to his back, can save the world. All he has to do is infiltrate the Nazi rocket factories, find enough bits to build a rocket, nip off to the moon and destroy the lunarium base. Easy when you know how.

But the man's busy. Before getting anywhere near the moon there's a kidnapped scientist and his daughter to rescue, a highly explosive Zeppelin to be disabled without blowing it up, five secret agents to contact and their findings to be acted upon, trips to South America, Luftwaffe fighters to gun down and all those little rocket bits to be picked on the way.

Unlike some of Cinemaware's other titles, *Rocket Ranger*'s graphics and gameplay complement each other perfectly. There is a staggering amount of things to do, and the game's humour soon proves wildly infectious. After a while you really do get the sensation that you're taking part in a *Flash Gordon* movie — and that's a lot of fun. Not as cheap as a a visit to the cinema, but then you'll be enjoying this for a lot longer!



Faster than the speed of light



Everything to make a Rocket Ranger appears as if by magic on the unsuspecting hero's tidy desk — ready for launch to the moon

All this and Barbarian too

SKRULL

16/32 Edition

Psygnosis's *Barbarian* (up to 87% in TGM002) has spawned surprisingly few imitators, but *Skrull* — from an obscure French software house — is a fine example, with even greater depth than the original. And though this is not an official licence, *Skrull* is the namesake of a swords'n'sorcery movie and a series of comic/fantasy books — which all adds to the hunky hacker mystique!

This barbarian does have rather unusual heritage — it's not every day that the most powerful magical forces of the land get together to produce a child. And the parents of Skrull are the dazzlingly beautiful Sun Woman (no page 3 jokes, please), the symbol of all that's good and pure, and the Shadow Man (no Hank Marvin jokes, please) — a rugged but cold, evil sorcerer.

Magic must run in the family, because it's only Skrull who can save the world when it begins to collapse in on itself, its life and light dying, fading. And the key to the world's salvation lies somewhere in a maze of dark caves, full of savage, energy-draining creatures and traps which Skrull must slaughter and avoid — or dime a bloody death himself.

You guide this hero through the flip-screen play area using mouse-controlled icons. Most action icons represent two commands, for the left and right mouse buttons: for instance, walk and run are available in left or right directions, sword thrust can be at either of two heights, and so on.

Objects can be used to activate portals and neutralise traps, though often well-timed leaps are equally useful for avoiding hazards.



The key to the world's salvation lies deep in a maze of caves, and only Skrull can find it and beat off the forces of evil

The dual-action icon system is a blessing, giving great flexibility without the need for an

"Deeper and more compelling than Barbarian"



The flavour of B-movie Saturday serials lend graphic character, as an RKO mast flashes an SOS

C64/128 **85%**

disk only: £19.99

From packaging to gameplay, the whole thing is excellent. Disk access isn't too long, and disk swapping's kept to a minimum. It all allows plenty of brilliant flying scenes, action, well-scripted storylines and so many other touches that it makes this Cinemaware's best ever release — it's a must for C64 disk owners.

OTHER FORMATS

Amiga and PC versions are out now at £29.99 — but according to Cathy Campos of Mirrorsoft (which handles Cinemaware on this brave isle) ST owners will have to wait to do the war-hero bit. 'My latest news from the States,' she says, 'is that it's a couple of months away yet... they've had a lot of problems reconciling the NTSC ST with the PAL ST [NTSC and PAL are the American and European TV-display standards]. I've now shipped them out a PAL ST so they can develop on the right machine.' The free world needs more women like Cathy Campos!

"Wildly infectious, it's a must for for C64 disk owners"

unwieldy joystick system or a cluttered screen — and it keeps an excitingly hectic air when you're in a tight spot. True, the response is sometimes slow — or nonexistent — but this is more the exception than the rule.

There's a wider range of monsters and a larger playing area than in *Barbarian*, so the gameplay is deeper and more compelling — fans of the original will instantly warm to *Skrull*, and many newcomers will find it absorbing too.

ATARI ST **73%**

£24.95

It's gameplay that really makes Skrull work — though the graphics are good enough, with some creepy sprites like a giant spider, many of them move jerkily. Skrull himself is an apelike figure with a top-knot, adequately animated but dully coloured and fashioned. The backgrounds have many distinguishing features, though they're slightly repetitive — the only real letdown is the sound, with a few weak samples for effects and tedious, noisy looping loading music.

OTHER FORMATS

An Amiga version will follow in the next few weeks, according to 16/32 Edition's Dominique Nicoli, and 'maybe PC'. But Nicoli, speaking from the firm's Paris HQ, bemoans the fact that 16/32 Edition still haven't found UK distributors for all their products — so though large firms such as Microdeal will put Skrull on the shelves, your best bet for other games may be mail-order outfits like Club 68000 (telephone 01 977-9596).

VERSION UPDATE

SUPER HANG-ON

Electric Dreams ● Amiga: £24.99

SEGA long ago cornered the market in arcade racing games, following the juddering coin-op cabinet of *Out Run* with the tilting and rocking of *Hang-On*.

The fun on two wheels continued with the turbo boost of *Super Hang-On*, but computer conversions failed to capture the excitement of the real bike races — until the 16-bit power of the ST finally fired up the engine.

And all that bodes well for Amiga owners. But better news still — anyone expecting an unchanged ST/Amiga conversion will be even more pleasantly surprised — for the programming team of Software Studios have considered the Amiga's superior capabilities and produced perhaps the best racing coin-op conversion yet.

wasting crashes are more likely.

The slightly compressed bike and rider sprites of the ST have been exchanged on the Amiga for larger, more colourful ones which really look like those on the coin-op. And the backgrounds have great detail, too.

The Games machine STAR UPDATE



Best of the conversions, and the best 16-bit bike racing game around

Before lowering your visor and starting the race, choose any of the four tracks, which range from six stages (Africa) to 18 (Europe) — and select one of four soundtracks to suit your mood.

The tortuous twisting bends are negotiated by joystick or mouse control (with a dose of luck or a lot of skill), but only on the straights can you open up the throttle and accelerate the bike to an astonishing 280km/h. This is where the 'Super' element comes in: now engage the nitro-injector and boost the bike's speed to a breathtaking 324km/h, leaving the opposition crawling along well behind.

Of course this speed makes control more difficult, so time-

Perspective is well plotted and smoothly animated across hills, around curves and down straights, and everything moves at a hectic pace that convinces you of the bike's simulated speed.

The game's only weak point is feeble sound: the four tunes are sedate, with simple voices, and they're largely drowned out by the irritated engine drone.

Super Hang-On offers pure, simple fun and lots of playability, and while there's no great depth, the speed of gameplay is nerve-tingling even without nitro-injection — real edge-of-the-seat action. It's the best racing game on the Amiga.

AMIGA: OVERALL 88%

ST: TGM011 90%

PRESS ANY KEY

Yawn-along-a-Tolkien

WAR IN MIDDLE EARTH

Melbourne House

Melbourne House have been associated with Tolkien since their adaption of *The Hobbit*. *Lord of the Rings* and *Shadows of Mordor* were received well. *War in Middle Earth* is a something of a departure in the series in that, unlike its predecessors it is essentially a wargame.

mLord Sauron's ring of power, having come into Bilbo Baggins's hands (The Hobbit) has now been passed on to his heir Frodo. You control all the characters and armies allied to the fellowship of the ring — dwarves, hobbits, elves and men.

The game is controlled from three screens using a command cursor to select desired options. A map displays Middle Earth, its terrain types and positions of any allied units.

Lord of the Rings fans will notice errors in the accompanying booklet — not only are some of the names spelt incorrectly but the story's wrong in places as well and there turns out to be very little for you to actually do.

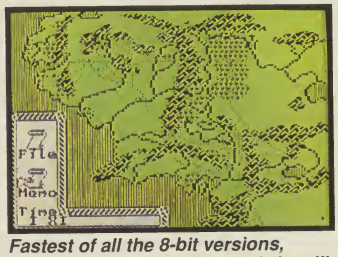
The battles soon become tedious as it's too easy to win even when faced with extremely unfavourable odds.

War in Middle Earth is very disappointing. Tolkien fans will find the lack of detail frustrating while wargamers will find this too straightforward to offer a lasting challenge.

C64/128 62%

cass: £9.99
disk: £14.99

Graphically the best version, the characters are more detailed and colour has been used effectively, but battles take an age.



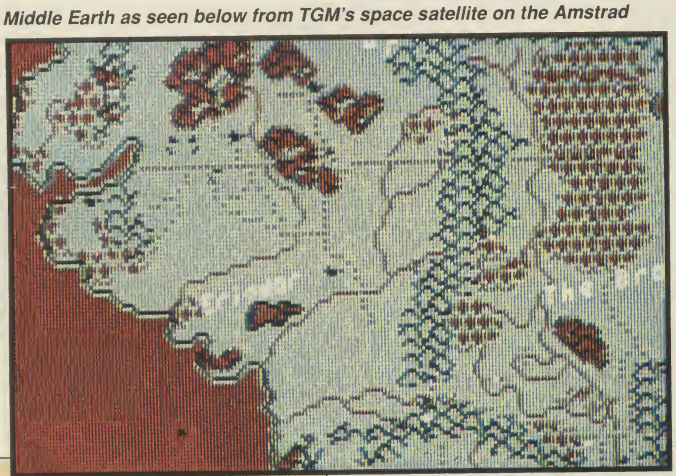
Fastest of all the 8-bit versions, Spectrum **War in Middle Earth** *is still too long-winded to be exciting, and too easy for the average RPG-er*

SPECTRUM 65%

cass: £9.99
disk: £14.99

As the fastest of the 8-bit conversions, the battle screens are the least tedious — they tend to be over quickly. The graphics are largely monochromatic with a bit of colour splashed around on the campaign map. A reasonable implementation but lacking

Middle Earth as seen below from TGM's space satellite on the Amstrad



AMSTRAD 65%

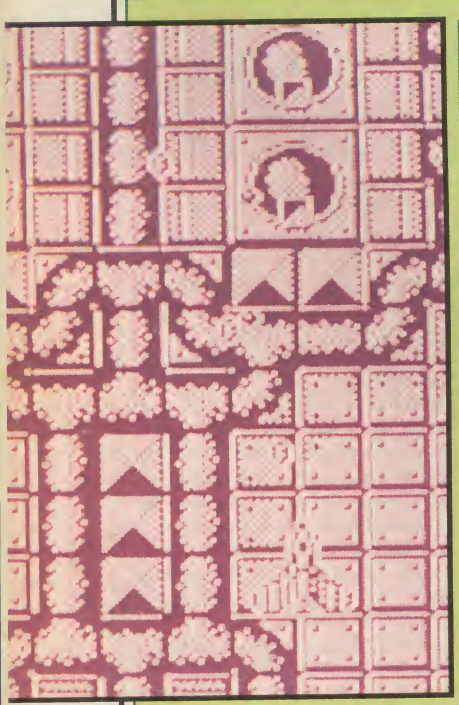
cass: £9.99 disk: £14.99

The battle screen features a few bugs — sometimes several men form a straight line with each member performing exactly the same movements. Odd.

Other Formats

Soon to be available for the ST, PC, Amiga.

"Too easy to win to offer a lasting challenge"



Entering territories hitherto the domain of 16-bit owners, Xenon *takes the Spectrum to new arcade graphic heights*

VERSION UPDATE

XENON

Melbourne House
Spectrum: £7.95 cass

REMEMBER when *Xenon* came out on the ST? With a score of 85% we reckoned it was the most challenging shoot-'em-up to date and a near-perfect arcade conversion to boot. Now the Spectrum version has arrived and its's as well implemented as its predecessors, pushing the Speccy into territorities hitherto the domain of 16-bit owners.

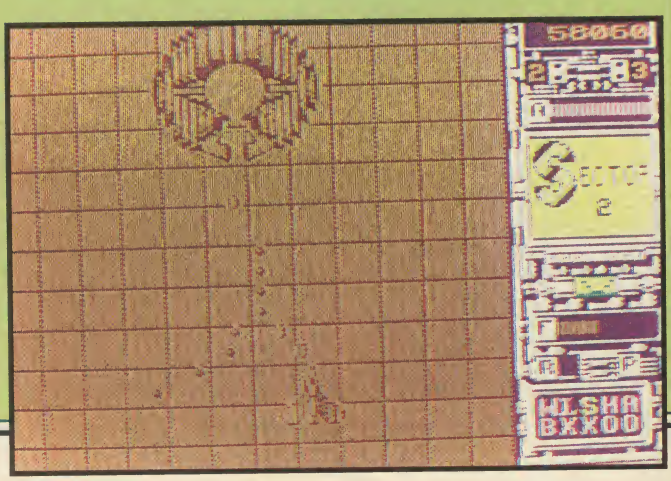
The gameplay remains exactly the same as before, with the player controlling a spacecraft which can transform into a hover-ship to take out ground-based aliens when required. Over a horizontally scrolling, beautifully designed landscape, the objective is to destroy as many of the irksome Xenite craft and ground installations, picking up icons left in their wake. There are 16 levels in all to complete, and at the end of each a massive mother-alien needs despatching before progressing to the next level.

This game just oozes addictivity and the combination of blasting and building your ship to near-awesome proportions as in *Nemesis* keeps you coming back time and time again. On the minus side the Spectrum version is if anything, a little too hard. On later levels proves a real pain.

128K owners are in for a musical treat — you'll be hard pushed to tell the difference between it and that on the ST. But for everyone it's a remarkable conversion. Animation is smooth, the number of aliens awesome, the alien-blasting finger-breaking.

OVERALL: 82%

ST: TGM 005 85%
AMIGA: TGM 005 89%



Marble Madness gets modern

INCREDIBLE SHRINKING SPHERE

Electric Dreams

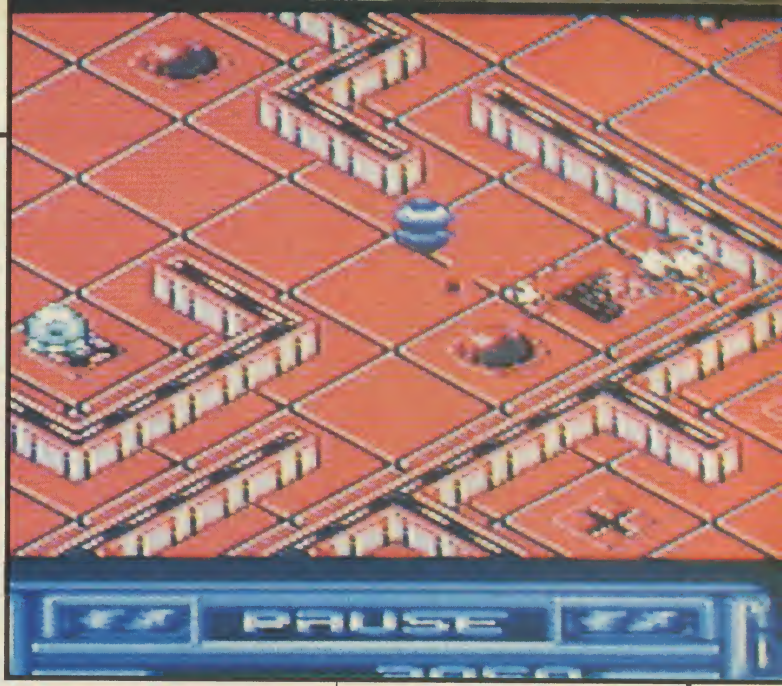
Marble Madness proved to be a durable arcade idea which has spawned several clones in its time, and it's a tribute to the original concept that most lookalikes have been invigoratingly playable and addictive. *The Incredible Shrinking Sphere* from **Four's Field** rings the changes to produce an imaginative ball-on-a-maze game for the Spectrum as you race in your sphere fighter on a training mission called the Sangfalmadore Run.

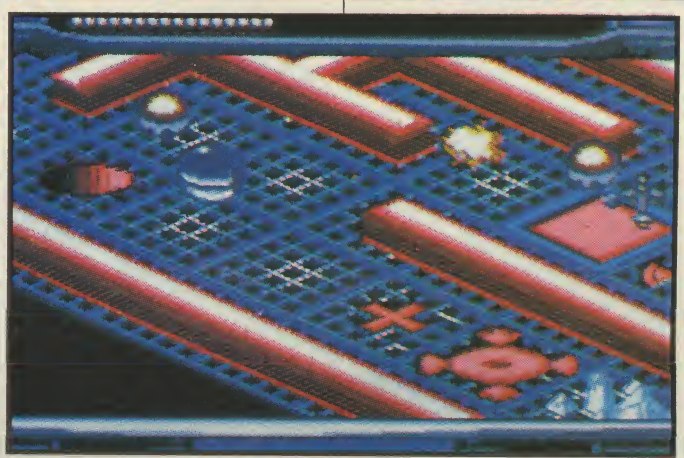
The Run is made up of eight levels, subdivided into four interconnected isometric mazes. A good enough sense of direction isn't enought, however, to find exits and lifts. The sphere is incredible not only because it can shrink, but also because it can expand and change its weight by touching special tiles. Small means you can use narrow passageways, light means you don't fall through cracked tiles, but at other times you need to be big and heavy to push objects around.

In the mazes hostile tiles can trap you, domes send you zooming off at high speed, and wathc out for assassin generators — hostile drones which take a life on contact — unless you have a shield (gained by touching the relevant tile) or shoot them first.

Ammunition is limited, but you can get a refill by bumping intc an ammo dump. The Run's toughest problem however, is the rapid decay of all the blank tiles. Contact with a decayed tile is deadly, so there's a time limit. But dashing blindly about often causes the normally erratic ball to become quite uncontrollable.

Incredible Shrinking Sphere is a fairly complex game and one of immense playability. Skill and strategy are needed to get through the levels and this combination gives it great lasting appeal.





Bouncy music and professional programming come together on the C64

AMIGA 80%

£24.99

Four's Field have come up with a fustratingly addictive variation on the simple maze game. The ball glides smoothly around the playing area although novices may find the inertia makes handling tricky. The sampled tune — a little rough — isn't as well suited to the game as it is on the ST.

ATARI ST 80%

£19.99

A slick version with very glossy presentation though some opponents look a little dull on the ST's limited colour screen, and ball movement doesn't quite match the Amiga's quality. It's nice to hear music that's original for once and not just a sample from the Amiga game. Multi-load is swift and doesn't distract from the game.

SPECTRUM 80%

cass: £9.99

Original, challenging, enjoyable and well worth the ten quid, the only major problem is the fact that after every life the sphere goes back to the top of the first plate. The title tune hardly deserves the name but spot effects are adequate.

AMSTRAD 63%

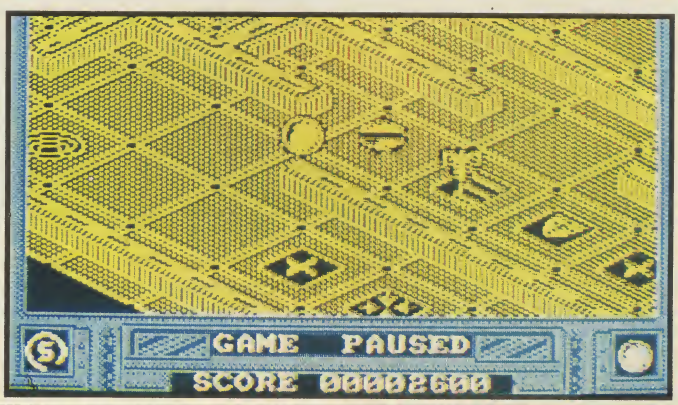
cass: £9.99, disk: £14.99

Eye-straining background colour schemes aren't helped by monochrome sprites and juddery scrolling. Some graphics are lost in the mazes and the occasional sound effects are harsh, but some playability manages to show through the faults.

C64/128 84%

cass £9.99
disk £14.99

Anthony Lees's musical interludes, bouncy in-game FX and Four's Field's professional programming touch all come together in what is by far the best 8-bit version, the all-round presentation beats the 16-bit versions hands down too.



It's been a while since a decent **Marble Madness** *clone hit the streets, but Four's Field have gone several leaps ahead with this highly addictive game — Amiga screen at the top, Spectrum on the right*

"A complex game of immense playability"

PRESS ANY KEY

Lord love a duck

DYNAMIC DUO

Firebird

Despite Firebird's ambitious title, there's little dynamic about this reworking of the old key-collecting theme — it's the sort of game that gives 8-bits a bad name for indistinct graphics and jarring music. And it's also a disappointment from programmers Probe Software, who did pretty well for the same software house with *Savage* (over 70% in TGM014).

Only the two-player option gives it any buyability, because some people just can't get enough of each other's company. Like the dwarf and the duck, for instance — when this wimpy duo venture into the ominously-named Night House in search of the mysteriously-named Calculations Room, they stick together, with the duck riding on his fat friend's head.

But as the two make their way around, falling through holes to go down and disappearing through doors to go up (nothing as posh as ladders in this program, guv), the duck can fly off to search for parts of the Calculations Room's key.

Anyhow, the basic idea is to collect all ten parts of the key, using a simple diagrammatic map, piece them together and go for a quick calculation. Given the dwarf's extraordinarily laid-back pace, the best strategy is to send the duck out looking for chests which contain key parts, and then bring the dwarf to collect them — he's got to make himself useful sometime.

Assorted flying skulls, eyes, and other cliches of pixelated evil make frequent appearances, but as their flight patterns are fairly predictable it's just a matter of shooting from the right position.



Scoring 98.7 on the TGM Index of Pointlessness, *Dynamic Duo* is about as worthwhile as a key to the Calculations Room. There's not much to distinguish the three versions, but read on nonetheless...

C64/128 29%

cass: £9.99
disk: £12.99

The best version (pictured above) does offer a moderately boppy title tune and occasionally stimulating graphics.

SPECTRUM 25%

cass: £7.99

Plain, repetitive backgrounds and unexciting sprites do nothing to distract you from the gameplay — plain, repetitive and unexciting in itself.

AMSTRAD 24%

cass: £8.99
disk: £14.99

There's plenty of colour here — pity about the illegible title screen and extremely irritating in-game music. Also, be warned: the terrifying Grim Reaper is not a stray ghost from Pac-Mania.

OTHER FORMATS

Firebird have no plans for 16-bit versions — hardly surprising, it would be difficult to add depth or addictivity to this low-budget gameplay.

New look space-invading Eighties style with

GALAGA 88

Namco

Way back in the mists of time, when coin-ops were in their infancy and crude consoles roamed the Earth, there lived an infamous shoot-'em-up called *Galaxians* — a program second in stature only to the mighty *Space Invaders*. Since 1979 Namco produced four sequels, gradually introducing more features: *Super Galaxians*, *Galaga*, *Gaplus* and *Galaga 88*.

Galaga 88 continues in the time-honoured arcade tradition of a lone fighter saving the universe from a horde of unspeakabe aliens, only this time the ship isn't highly manoeuvrable.

Instead it's steered left and right at the base of the screen, shooting vertically upwards. It does, however, have the ability to link to sister ships, and up to three may be linked to create a mega-blasting super ship.

Aliens of various types swirl araound onscreen and, given half a chance, gather into a fleet near the top of the screen from where they start dive-bombing raids.

Some flying insectoid types, including swooping porcine aphids formed by two smaller aliens take more than one shot to kill.

Special aliens hover halfway down screen and emit tractor beams — if you allow your ship to be captured the alien takes it to the top of the screen.

When destroyed, it releases the captured craft to link with the ship curently under your control and increase its firepower.

Every few levels a bonus round, the amusing 'Galactic Dancing', features 40 aliens, ripe for blasting, parading around the screen in time to an enticing musical score.

The gameplay of *Galaga 88* might be simple and old-fashioned but its incredible addictiveness proves that old ideas can sometimes be the best. The overall presentation is excellent and the difficulty level is set just right. This is one conversion shoot-'em-up fans would be foolish to miss.

Paris to Dakar on the PC Engine

VICTORY RUN

Hudson Soft

With the Sega Megadrive on the horizon (see TGM Report), the PC Engine may be in for a tough time in the UK as the two consoles jockey for top slot. The Sega has the advantage of being the offspring of the major coin-op producer of the same name. Sega's biggest title is surely Out Run, the massive racing game which the Engine can only hope to combat with an equally playable clone. Can Victory Run deliver?

The player must take his five-gear truck on a road run, and naturally enough, victory is the aim in the race. Curiously, though, for a game of Japanese origin, the race is a recreation of the Paris-Dakar rally.

Unlike many games of its type, it's not just a case of going as fast as possible while avoiding crashes. Before beginning the race the player has 20 credits to spend on spare parts. These are divided up into five types: brakes, suspension, gears, engine and tyres.

Each stage of the long and testing route is played against a time limit. Progress is hindered by bikes, sports cars, pick-up trucks and lorries on the same journey, as well as by the slopes, turns and roadside obstacles. Collision with any of these wastes precious time, and in this strange computer console world this is shown by the rapid onset





PC ENGINE 86%

£29.95

The introductory scene where the fighter leaves a space station, sets the standard for the whole game which is colourful with well-shaded background features, lively sprites, smooth scrolling and high-quality music and effects. Many diverse aliens swarm smoothly and rapidly round the screen and combine brilliantly with the amusing music of Galactic Dancing. Galaga 88 is always playable, wonderfully challenging and has you frequently coming back for more. It's faithful to the coin-op in every respect and is as good a conversion as R-Type. 'Nuff said.

"The addictiveness proves old ideas can be the best"



PC ENGINE 59%

rom card £24.95

The definition of the various vehicles is, surprisingly, quite sloppy. Your rally truck is dully coloured and quite angular whilst amongst others the bikes are stupidly large. The track edges are quite blocky but perspective is good and the hills are effective. Update of vehicles as they're approached is a little jerky and unfortunately is made worse at top speed, when things happen at a ridiculous pace.

"Soon becomes boring and ceases to be an amusing challenge"

of sunset and night.

It is at the end of each stage that progress is marked on a map window and the parts purchased earlier are used to repair worn parts of the vehicle.

Victory Run's problem is twofold: graphically, the vehicles don't change and the horizon scenery changes are dull, and in playability, the perspective is not effective enough and the hills and bends not wild enough to generate any tension. The result of this is that the game soon becomes boring and winning the Paris_Dakar rally ceases to be an amusing challenge.

Street cleaning action from Irem

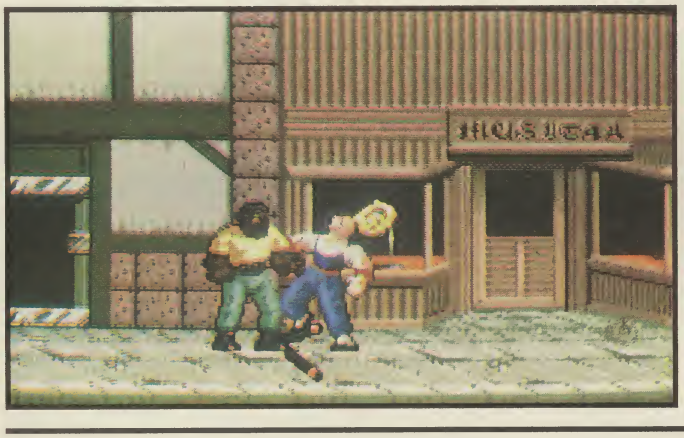
VIGILANTE

Irem



The tough streets of New York are about to get a lot rougher when The Vigilante finds out his girlfriend Madonna has been kidnapped by a gang of skinheads. This guy's got it in for every member of the gang and even the thought of going up against them on their own turf won't put him off from rescuing his girl. Love must truly be blind if it means getting your head kicked in.

The first level begins with the Vigilante taking a quiet stroll down a sidewalk in the Big Apple. The kidnappers aren't ones to skimp on protection and send bodybuilders, hoods and other burly bad guys to rub out this minor nuisance. Vigilante isn't too original in his methods of dispatching the opposition — punching and kicking is the order of the day with a nunchaka or two thown in to deal with the real hard nuts.



On the first level the attacks are fairly mild with only knife men and pistol toting hitmen posing a serious threat, the mass of stranglers are easily dealt with if you can get them before they latch onto you. If the Vigilante gets to the end of the first level he only has to take on a clubman and a Brian Blessed lookalike to reach the van holding Madonna captive. With new scenes come new enemies armed with chains, hell's angels needing a kick in the Harley Davidson's and yet tougher end-of-level macho men.

Vigilante was one of the better arcade beat-'em-ups thanks to its simplistic control system — a feature which greatly enhanced gameplay. This has not been lost on the Engine conversion, making a good beat-'em-up with steadfast gameplay, if a little pricey.

PC ENGINE 75%

rom card: £29.95

Vigilante **is arcade perfect with no noticeable differences to the coin-op. Graphically excellent it is a significant improvement on Drunken Master, although its long term appeal is dubious.**

"Love must truly be blind if it means getting your head kicked in"

Take to the skies as a fire-breathing reptile in

DRAGON SPIRIT

Namco



You, the great soldier Amul, are blessed with dragon spirit —the power to transform into a blue dragon at will. This handy power is in great demand at present as the fair princess Alicia has been kidnapped by the horrific dragon Zawell. Being the unfriendly sort, Zawell won't give her back without a struggle and, with nine levels between you and her it ain't going to be easy. Once in the clouds you begin to cause a flap by shooting down pterodactyls, killer wasps and other members of Zawell's army.

True to the coin-op, each of Zawell's friends must be defeated at the end of each level. The first-level guardian is a relative of the Loch Ness Monster who breathes fire in your general direction. Later levels take you over volcanic regions, jungles and polar regions where many a Dragon has fallen foul of Zawell's cohorts.

The standard shoot-'em-up fare is spiced up by the collection of eggs to increase the dragon's firepower, and energy levels to provide him with extra heads. However, even if you've got the maximum of three heads and fireballs galore belching from your mouth, one hit is all it takes to knock off a head and take you down an energy unit.

Dragon Spirit wasn't the greatest of arcade machines to start with and this conversion fails to thrill. What saves the day is the simple but addictive gameplay combined with an original scenario.

PC ENGINE 65%

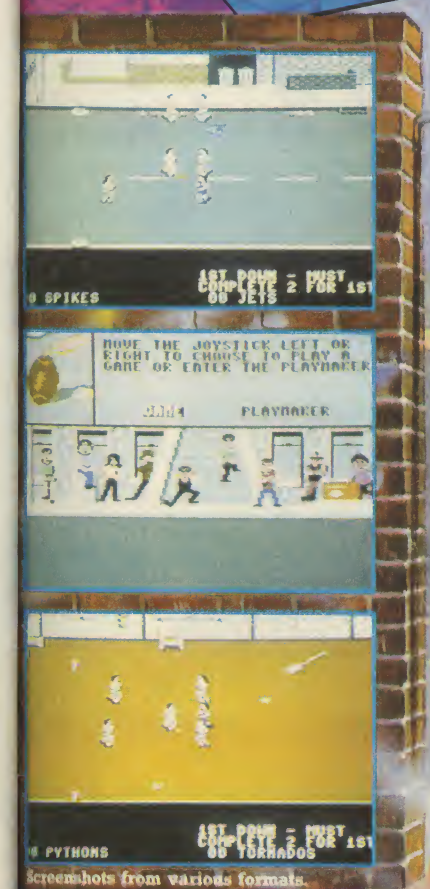
Rom Card: £29.95

Dragon Spirit **looks good, featuring a well animated dragon and levels rich in graphical and musical variety. All in all a well executed conversion of a not-so brilliant coin-op.**

"A well executed conversion of a not-so brilliant coin-op"

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CHOP CHOP!

HACK 'EM and SLAY 'EM on the PC ENGINE



It's tiny, it's fierce, it's from Eastern lands and no, it's *not* a Gremlin – the PC Engine has officially arrived in Britain, thanks to **Micromedia**. And to celebrate the new Japanese invasion, Micromedia are offering a **PC Engine plus three games** to the **winner** of this console-ing comp!

The PC Engine will work with any SCART display – such as the Amiga monitor – and the three games are *Victory Run* (top-speed racing), *Tale Of The Monster Path* (fantastic arcade adventure), and *R-Type* (needs no introduction . . .).

And the **runner-up** can capture the flavour of the Orient too, with an amazing **sword** – a Japanese Bokken, carved in natural wood and intended for warrior practice! (Exhaustive TGM tests have shown that the Bokken – pictured here – is also useful for getting things down from high shelves, playing ninja golf, and giving giraffes one in the eye.)

All you have to do is rate the **top four features** of the PC Engine from this list:

1 Megagames
2 Arcade-quality graphics
3 Multichannel stereo sound
4 Instant loading
5 Multiplayer interaction
6 Fast processing
7 Advanced micro circuitry
8 Compact design
9 Built for the future
10 On/off switch

Write the top four features in order (just using the numbers – eg 8 6 7 2) and send your answers on a postcard or the back of a sealed envelope, along with your name and address (stupid), to: **PURE MAYHEM WITH THE PC ENGINE COMP, TGM, *PO BOX 10, LUDLOW, SHROPSHIRE SY8 1DB*** to arrive by **April 20.**

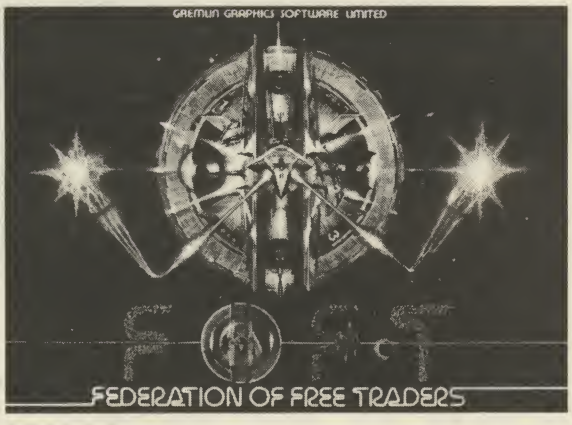
But **STOP!!!** – there's two more things to do. First, to pick the winners we also need you to complete a **tiebreak**: in not more than eight words, say why you'd like to own a PC Engine.

And finally, if you'd like to receive further info about the Engine, please write the word YES in the upper left-hand corner of your postcard/envelope (the side with the answers on).

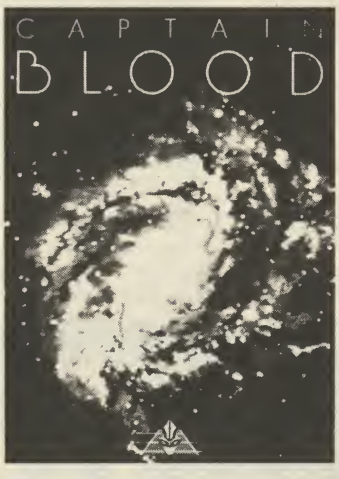
Usual rules as printed on the contents page apply.



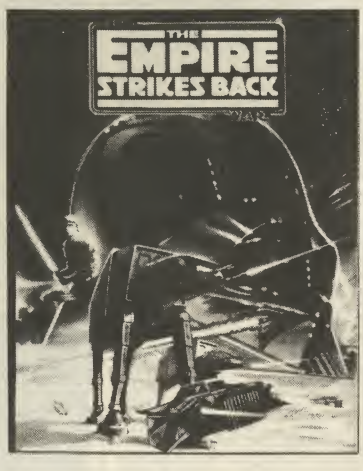
Save a Princess, save the planet, save £3.

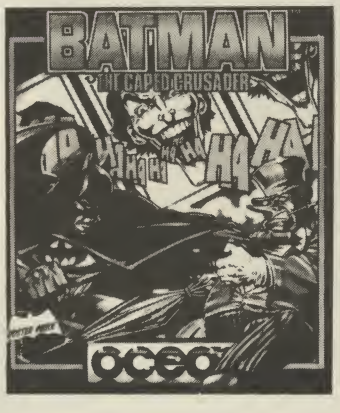












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CONFRONTATION: COIN-OP

No time for Robin Hogg to relax after the ATEI show. This month a mixed bag including a look at *Metal Hawk*, Rainbow Arts' new coin-op label, and what to look for in second hand arcade machines.

SLOT NEWS

SEGA look to be back on form with the release of *Turbo Out Run*. No measly Testarossa this time round but the top-of-the-range Ferrari F40. Even faster than its predecessor this one looks set to be a major hit this summer. No doubt US Gold and Activision are vying for the conversion rights. Bye, bye *Power Drift*?

Looking quite a way ahead Sega have *After Burner 2* now on general release in Japan. Essentially the same in gameplay it's the further adventures of everyone's favourite F-14. Great if you like *Afterburner* but not much different from the existing machine.

Finally, **Konami**'s *Missing In Action* has discreetly entered UK arcades. A dual player variant on *Green Beret*, *MIA* is disappointingly unoriginal but enjoyable and as ever a well presented Konami game. Not one that looks set to put Konami back on top of the pile, though.



It looks nice, but check out the cost before you think of putting one in your living room!

METAL HAWK

Namco

The *Thunder Blade* influence creeps into dedicated machines again as **Namco**'s *Metal Hawk* will testify. Installed in one of the better design flight cabinets, *Metal Hawk* is mass destruction in the air. Taking the look-down perspective of *Thunder Blade* Namco's game sees you at the controls of a super advanced attack helicopter. Your mission in this desperate hour of need is to take on and destroy the enemy's entire military might – Navy, airforce, army and all.

Hum drum plot over with, *Metal Hawk* takes you and your helicopter deep into enemy territory armed to the teeth, beak and claw with air-to-anything-dangerous missiles and all with layered graphics being expanded and compressed to create the illusion of height. Graphically it may not look all that good close up (when do layered graphics ever?) but the speed with which they zoom up to meet your earthwards spiralling 'copter can keep your stomach permanently up in the air. Hydraulics enhance an already remarkable flight sensation and the militaristic quality of the graphics sets the scene for a game with more action than *Thunder Blade*.

As *Metal Hawk* is multi-way movement the *Thunder Blade* idea quite a step forward. Learning to use the full three dimensions of movement while trying to attack ground based and air targets takes a lot of getting used to. The rewards for all these aerial attacks sees the chopper hover off to the next sector battling with bombers high up in the clouds, battleships out at sea and all in three dimensions.

Namco are coming out with all guns blazing in the battle against *Thunder Blade*. The all-way directional movement expands on the gameplay concept behind Sega's coin-op and gives the player a great sense of freedom. Veterans may find the controls a little odd at first and the lack of head-on sequences a cop out but *Metal Hawk* delivers in out and out blasting action. Who can ask for more?

THE DARK CHAMBER

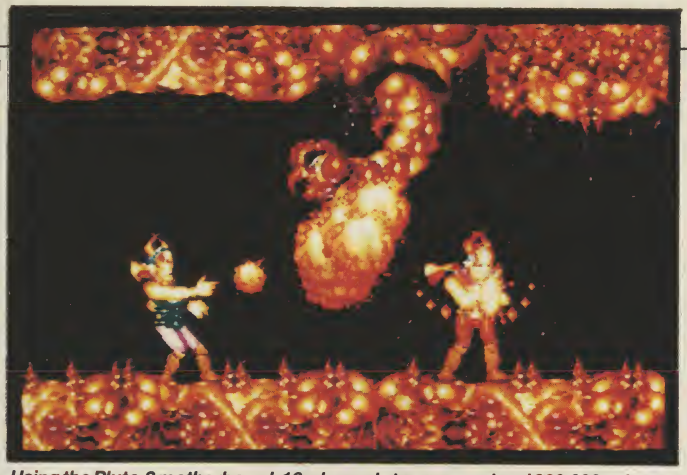
Rainbow Arts (Preview)

The German programming team **Rainbow Arts** are a familiar name when it comes to computer games. Now they're trying their hand at coin-op machines. The first of five games, titled *The Dark Chamber* is to be released through Rainbow Games, a sister company of the 'Arts formed in late '87.

The in-house development in preparation for the creation of 5 new games has produced the Pluto 2 motherboard. A 32-bit processor operating at 15 Mghz is at the heart of the system with 16-channel stereo sound, 260,000

Splendid graphics as Rainbow Arts venture into the arcades with **The Dark Chamber**





Using the Pluto 2 motherboard, 16-channel stereo sound and 200,000 colours mean **The Dark Chamber** *looks a dream*

worth of colours and an I/O expansion facility for hardware extras.

The Dark Chamber looks superb and will no doubt have the game presentation and quality that Rainbow Arts are renowned for. New creation talent unhindered by current trends is always good but whether the public will take to the games in what is a crowded arcade scene is debatable. Rainbow Games certainly believe in the system and are working on the next game *Monster Olympics* to follow within a month.

FROM MICRO TO MOTHERBOARD

COIN-OP conversions are commonplace in the computer games field. Conversions *to* the arcades however are less so and no 'home generated' game has yet taken the coin-op scene by storm. Better known but mostly unsuccessful conversions include **Exidy**'s reworking of *Boulder Dash*, the ill-fated *Starglider*, and Broderbund's *Choplifter*. More recently we've had Ocean with their involvement in **Data East**'s *RoboCop* and **Atari** with one of the most unlikely but welcomingly fresh conversions so far – the Andromeda Software puzzle game *Tetris*.

The gap between software companies and coin-op manufacturers is beginning to narrow as the cross-influence spreads. **Nintendo** are installing console games in their **Playchoice 10** and **Arcadia** are trying to bridge the gap with their revamped **Super Select System**. Arcade masters **Sega** are trying to confuse us all with their **Mega System**. This rival to the Playchoice 10 contains conversions of their existing coin-ops but uses the 16-bit Mega Drive console system as a technology base. If Nintendo haven't sewn up the market already then Sega are in with a chance.

BUYING SECOND HAND COIN-OPS

THEY may not be the most common of Christmas or birthday presents but video coin-ops are much sought machines by the arcade crowd and veterans alike – so much so, in fact, that Information Desk is regularly inundated with readers enquiring about them.

Arcade machines fall into two distinct types – the dedicated games and videos. The former type of coin-op is just based around the one system and leaves little room for expansion. With this closed architecture comes a larger design than normal with the cabinet using dedicated designs and a designer price to match.

Examples of Dedicated machines include *Star Wars*, *Street Fighter*, *Super Sprint*, *Out Run*, *Afterburner* and many more even larger systems. A system like *Gauntlet* isn't included in this category as it is quite easy to convert it into Konami's *The Main Event* conversion (little more than a change of PCB).

Video games are a lot simpler to handle with their compatibility of design and mechanisms along with the presence of the JAMMA standard interface link. Through the JAMMA link a standard PCB connection is achieved in that most of the recent PCB software can directly connect into a universal cabinet and run almost immediately (Sega and Taito proving an exception with their own unique systems).

Earlier PCB's were a mixture of standards and not all of them recognise the JAMMA standard. To counter this interface links can be bought bridging the non-compatible gap between JAMMA standard within the universal cabinet and the PCB (generally anything before the era of *Soldier of Light* is a potential non JAMMA compatible PCB). The plethora of different standards as well means different links of varying configuration.

BITS AND PIECES

WHILE cheaper systems may have a sound cabinet the internal mechanisms, monitor display and inevitably joystick controls, may have taken a battering. Most traders recommend purchase of a complete system, because when you start buying bits it can get very complicated indeed (anyone with an electrical engineering degree around?).

This entails a universal cabinet complete with internal board and mechanics, monitor along with two joysticks and three independent fire buttons per stick. After all why deprive yourself of the chance to have dual player fun with only one stick? The monitor must be able to move through 90° if you want to install vertically scrolling games. Most monitors are primarily horizontal, a lot of the newer systems incorporate both horizontal and vertical movement within one monitor. The standing up on end of the monitor is a relatively easy job providing you know where everything goes and now how to reinstall the cabinet and board around it afterwards.

On the electricity front the power drain is surprisingly little with reliable 5volt/12volt stepped down transformers keeping power down to safe levels. Most importantly, don't forget about the interface link for the older PCB's when you're considering installing older PCB's.

HOW MUCH A GO?

AS complete packages go, video game cabinets vary enormously compared with the high cost and inflexible offers available on dedicated systems. Below is listed a wide selection of prices for complete systems. Don't expect to be able to buy a Scramble Cabinet and then be able to buy something like a *Ghouls 'n' Ghosts* PCB – brand new PCB's can cost anything from £500 to £1000 and up depending on the company behind it, the potential, game complexity, concept, technology level and a host of other factors (not to mention the trader's mark-up).

MACHINE PRICES

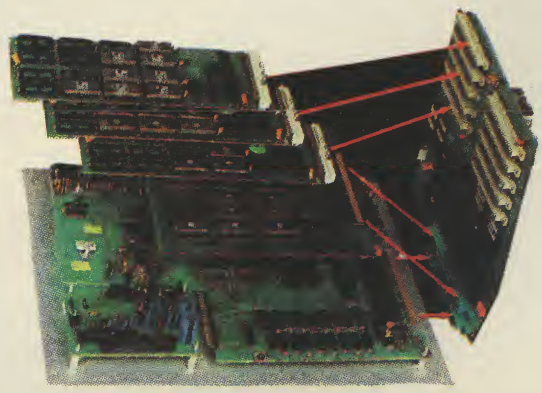
Out Run £1700 – £4600 (From Sit-Up to Deluxe version)
Thunder Blade £1800 – £3000 (Covers all versions)
Chase HQ £2500
Sit Down *Star Wars* £475
After Burner £3400 – £5000 (Covers all versions).
WEC Le Mans £1290 – £4000 (From bottom end video to full blown total spin round tub/ hydraulics version)
Operation Wolf £1500
Joust £195 (Superb value for money considering you get a dual player cabinet and a free PCB)
Super Ranger £200 (As above)
Rastan Saga (£300)
Scramble £120 (Good value if only for the cabinet)
Side Arms £275
Toobin' £925
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Indiana Jones £265

ON THE MINUS SIDE . . .

ALTHOUGH it is possible to get hold of most types of arcade machine, the amusement trade handling the machines is primarily for the trade *only* and remains aloof from the public that pays their wages (be it directly or indirectly). On-going support for any private purchaser is rarely provided although repair services are available.

If you're not put off by this check the classifieds in trade papers such as *Coin Slot*. Alternatively try classifieds in newspapers, electronic or entertainment magazines or have a word with your local arcade manager as to the source of his machines.

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ROBIN HOGG'S PLAYING TIPS

YOUR GUIDE TO BETTER GAMING

OPERATION WOLF

All formats

Smash the commies, leave the innocent unharmed – and increase your score with these tips.

Level 1
Don't shoot the nurses – the best way of avoiding this is never to aim your sight halfway down the left-hand side, which is where the nurses appear.

Use just three or four grenades on this level.

Level 2
This level is really easy, a 'rest level'. So don't use *any* grenades – save them for level 3.

Shoot the parachutists as soon as possible; also get the wildfowl and the break dancers. And watch out for the little boy who runs from left to right.

Level 3
You should still have a good supply of grenades – and you're going to need them. But it's best to save the grenades for helicopters.

Don't shoot the girls (remember you *can* stop shooting!).

Good news: your damage level is restored to full fighting fitness when you complete this stage.

Level 4
The massive butch men with the big guns can only be shot in the head, so don't let your sight wander below their neck. But always shoot helicopters before humans.

More good news: your ammo is restocked at the end of the level.

Level 5
The hostages are on this well-guarded level, and it's tough, so be careful. Don't shoot the dynamite when an escaping hostage is onscreen – it will kill him.

But basically use your ammo, use your grenades, use everything – just watch out for those hostages, as they run right to left along the centre lane.

Level 6
The hostages again go from right to left. A lot of shooting is necessary.

Butch men, helicopters, tanks . . . the lot need blasting away. Just keep that gun going. And don't miss one 'P' bottle or grenade, because they're vital.

OP WOLF: SPECTRUM LIVES

If the tips aren't enough to free those hostages and increase your score, try this cheat routine for infinite lives and ammo. Type the program into your Spectrum, RUN it, and then start the *Operation Wolf* tape as normal.

Thanks to 'The Mystery Hacker' for all these tips and POKEs – and blame him/her if anything goes wrong when you press QWERT while playing, as the tipster suggests!

```
10 FOR A = 23296 TO 65535
20 READ F: IF F = 999 THEN RAN-
   DOMIZE USR 23296
30 POKE A,F: NEXT A
40 DATA 243, 62, 255, 55, 221
50 DATA 33, 203, 92, 17, 162
60 DATA 10, 205, 86, 5, 48
70 DATA 241, 175, 50, 35, 93
80 DATA 205, 22, 93, 30, 101
90 DATA 33, 180, 244, 1, 52
100 DATA 10, 53, 11, 35, 120
110 DATA 177, 32, 249, 29, 123
120 DATA 211, 254, 32, 237, 62
130 DATA 202, 50, 106, 251, 205
140 DATA 92, 251, 62, 200, 50
150 DATA 123, 251, 205, 109, 251
160 DATA 33, 76, 91, 175, 50
170 DATA 43, 252, 34, 22, 254
180 DATA 49, 0, 0, 195, 222
190 DATA 254, 62, 201, 50, 80
200 DATA 254, 205, 64, 254, 175
210 DATA 50, 6, 159, 50, 233
220 DATA 158, 50, 254, 162, 50
230 DATA 255, 162, 195, 0, 128
240 DATA 999
```

DRAGON'S LAIR

Amiga

Kevin Griffiths of Wolverhampton has been working his way through this multidisk game. Here are some of his findings to help in your quest . . .

Disk 1

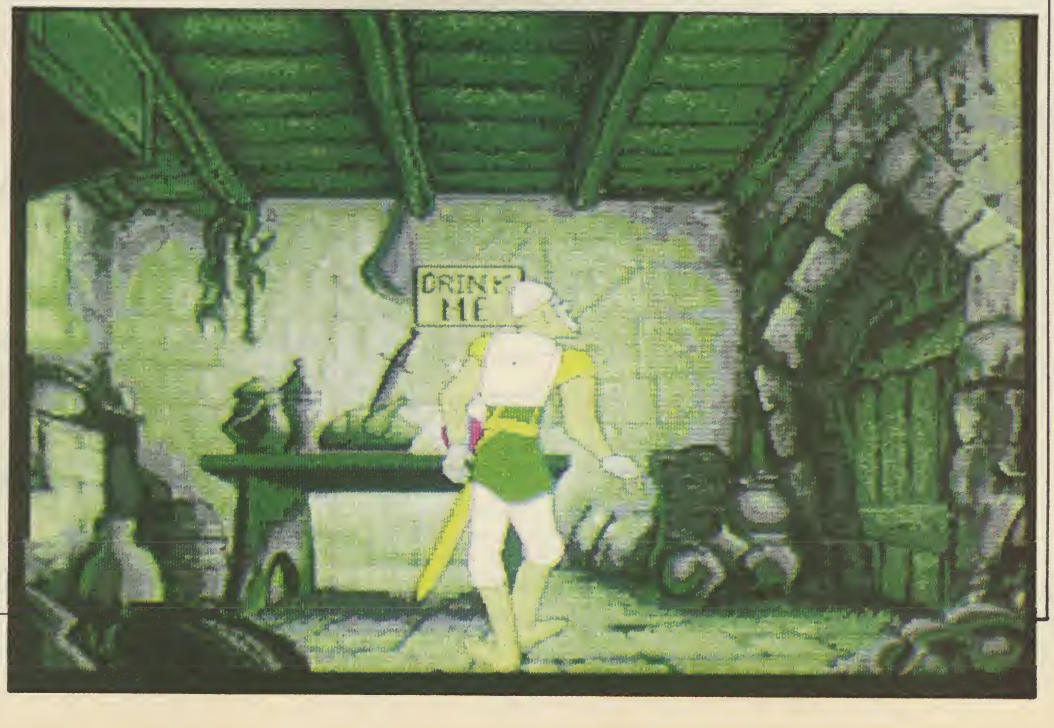
The Bridge
When Dirk falls through the bridge, do nothing till the tentacles start to move towards him. Then press the FIRE button once. As Dirk swings his sword, push up to climb back onto the bridge and escape.

The Room with the Bottle
As Dirk walks towards the table with the bottle on it, the sign on the back wall starts to flash. As Dirk gets closer to the table, the door on the right flashes. When this happens push right to move onto the next screen.

Disk 2

The Bat Cave
On this screen you start on either the right-hand or left-hand side, running down a flight of stairs. Just before Dirk reaches the gap, a stair on the opposite side will flash. As soon as this happens push either right or left (in the direction the stairs are running).

The Room with the Tentacles
As Dirk enters the room a tentacle attacks him from above. As it does, press FIRE once. When the weapons rack at the back of the screen flashes, push up twice. Dirk will then jump forward.



There should be a door either on the left or right of the screen. As Dirk is in midjump, press the joystick twice in the direction of the door.

As Dirk jumps towards the door push down twice. Dirk will start to jump backwards. Now press left twice. When Dirk starts to jump onto the stool, push up twice to finish the screen.

■ Disk 3

The Whirlpools
The whirlpool will appear on either the left-hand or right-hand side of the screen – push the joystick once in the *opposite* direction to keep Dirk out of harm's way.

The Rapids
Push the joystick once in the direction that the river is flowing. When Dirk is level with the river, push up once to go down it. As soon as the screen changes, push up again to jump over the rapids.

The Dragon
At the start of this screen *do nothing*! Dirk will walk over to a table with bottles on it. When he picks one up, the dragon will grab him. The screen will now change – as soon as it does press FIRE once to cut off the dragon's head.

■ Disk 4

The Square Room
As soon as you see Dirk standing on the squares press right twice, then left twice, then up twice, then left twice, then right twice, then left twice, then right twice.

The screen will change to reveal someone standing in front of Dirk. Now press FIRE once.

■ R-TYPE
ST

M H Tang of London has got to grips with the ST's inteSTines to help *R-Type* cheats. Type in the listing, insert *R-Type* disk A, and then run *this* program.

Lines 80 and 90 are optional: 80 gives infinite lives, while 90 lets you keep all collected weapons.

```
20 ADDR = &H7FD00
   30 DEF SEG = 0: REM ONLY
FOR OLD BASIC
   40 FOR F = 0 TO 37 STEP 2
   50 READ W$: POKE ADDR
F, VAL ("&H"+W$)
   60 NEXT F
   65 a$ = "RTYPE.DAT"
   70 BLOAD a$, &H50000
   80 POKE &H50F5E, &H6026
   90 POKE &H50EDA, &H6000: POKE
&H50EDC, &H82
100 CALL ADDR
110 DATA 42A7, 3F3C, 0020, 4E41,
46FC, 2700
120 DATA 41F8, 0400, 43F9, 0005,
0000, 203C
130 DATA 0000, 55FA, 20D9, 51C8,
FFFC, 4EF8, 0408
140 CHEAT = &H50000
150 CALL CHEAT
```



BAT TIPS

- Only eat the food when you really need it.
- Clowns drop toffee apples after being hit a couple of times.
- Low kicks will stop the rats biting you.

The Games machine STAR TIPS

■ BATMAN
ST

PART TWO: COMPLETE SOLUTION

In TGM**015** we left you stranded at the beginning of the second part of Ocean's *Batman* game, *A Fete Worse Than Death*. But never fear – here's **Barry Monger** to tell you how to rescue Robin from the evil clutches of The Joker.

The game starts in the park. Go left, then down, then right and pick up the metal bar. Continue right and pick up the lightbulb.

Now go left, up, left, up and collect the Batarang. Go down, left, down, left.

When in the dark room use the lightbulb. Then go to the locked door and open it with the metal bar. Drop the bar.

Go left and collect the torch. Now go down the ladder. The next screen is also dark, so use the torch to make life easier.

Go down, left, up and take the carrot.

Now go down, right, up and collect the gas mask. Go right; as soon as you enter this room use the gas mask.

Go down, left, down and down the ladder. Proceed right till you find another ladder. Climb up, this then go up, collect the teeth and use them.

Go down, right, up, up, left, down the ladder, left, up the ladder, down, left and collect fish.

Now go right, down, right and collect the bag of money.

Go up, right, down, right, up, up the ladder. Get the ears, use them, then drop them again.

Go down the ladder, down, right, up, right, up, left, up the ladder, right, down, left, down and collect the pliers. To defuse the bombs, stand next to them and use the pliers.

Go up, right, up, left, down the ladder, defuse bomb, right, down, left down. Proceed left, defuse bomb, up, left, down, left, up, up, defuse bomb, left, defuse bomb, left, collect handcuffs, then go up.

Now go right till you come to a ladder. Go down this, right, defuse bomb, right, climb up the ladder, right, down, down, left, up.

Climb down the ladder, left, defuse bomb, left, climb up the ladder, up, defuse bomb, right, up, left, down, left, defuse bomb.

Up, defuse bomb, down, right, up, right, down, left, down, climb down the ladder, right, climb up the ladder, right, up, up, left, climb down the ladder, left, climb up the ladder, down, down, right, up, right, down, right.

Continue right till you can go no further then go up, right, up, left, climb up the ladder, right, down, left, down, right, up, left up, up and take camera.

Use the camera and drop it, left, down, down, right. Continue right till you see a sign saying 'The Fun Fair'.

Now go right, up, up, left, stand by the fruit machine and use the money. pick up the ammo from the floor and go right, down, down. Continue right till you come to a screen that allows you to go up.

Take the gun, down, right, up, take the coconut, down, right, continue right till you arrive at the shooting gallery. Use the ammo and the gun. Collect the sunglasses.

Go left, up, use the sunglasses, take the turkey. Go left, climb up the ladder then go right. You will now see The Joker. Keep hitting him till he runs off.

Go up, up, hit the Joker till he flees, left, left, fight the Joker again, right, down, left, down, left, take the elephant, climb down the ladder, right, up.

Collect milk, down, left, down, left, up, left, down. Pick up the object, use it then drop it. Go up, right, up, climb up the ladder, up, collect knife, down, left, down continue left till you find The Joker.

Once again start hitting him – but this time, instead of running away he'll fall to the ground. When he's down use the handcuffs.

Take the Joker card from the floor and go right and then up. Continue left till you arrive in a room with a big Joker card in it. Use the card you've picked up, and walk through the big card as if it were a door.

Go left, collect the can, down, climb down the ladder, right, down, down, continue left till you find a room which allows you to go down, go down and you should now find yourself at the roller coaster.

Go right, climb up the ladder, continue right till you find another room with a ladder in it, climb up this. Go left but remember to duck as the eagles fly past.

If you continue left, you'll find the room where Robin is tied up. To free him and complete the game, use the knife.

Right?????

■ VIRUS
ST

Neil Cousins of Acton has a handy hint for Firebird's blockbuster.

Start the game and hold down ENTER on the numeric keypad. Then press P and O. Play will continue as normal, but pressing L at any time gives you an extra life and an additional missile, while pressing F replenishes your fuel.

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We want EXCLUSIVE tips on the LATEST games, so get cracking! Oh. and send them in to: Playing Tips, TGM, *PO Box 10, Ludlow, Shropshire SY8 1DB.*

PS: Will Barry Monger please send us his address in handwriting (so's we can root out fakes) to collect this month's software prize?

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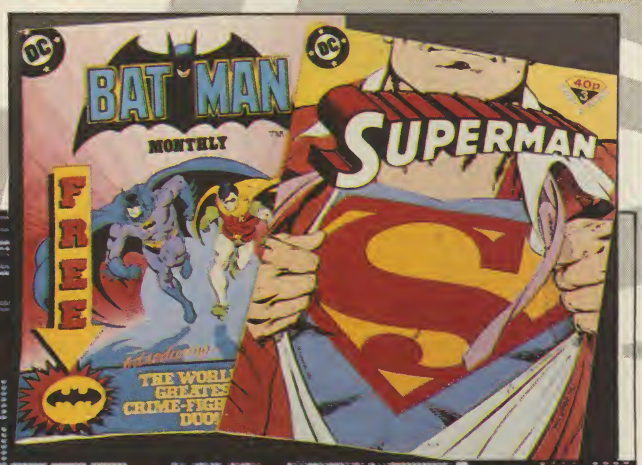
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COMPLEX COMIX

You scratch my genre, I'll scratch yours – that's the **attitude** of game and comic artists as they start to learn from each other.

TGM finds out what they think – and discovers why a new *2000AD* licence could appear soon.

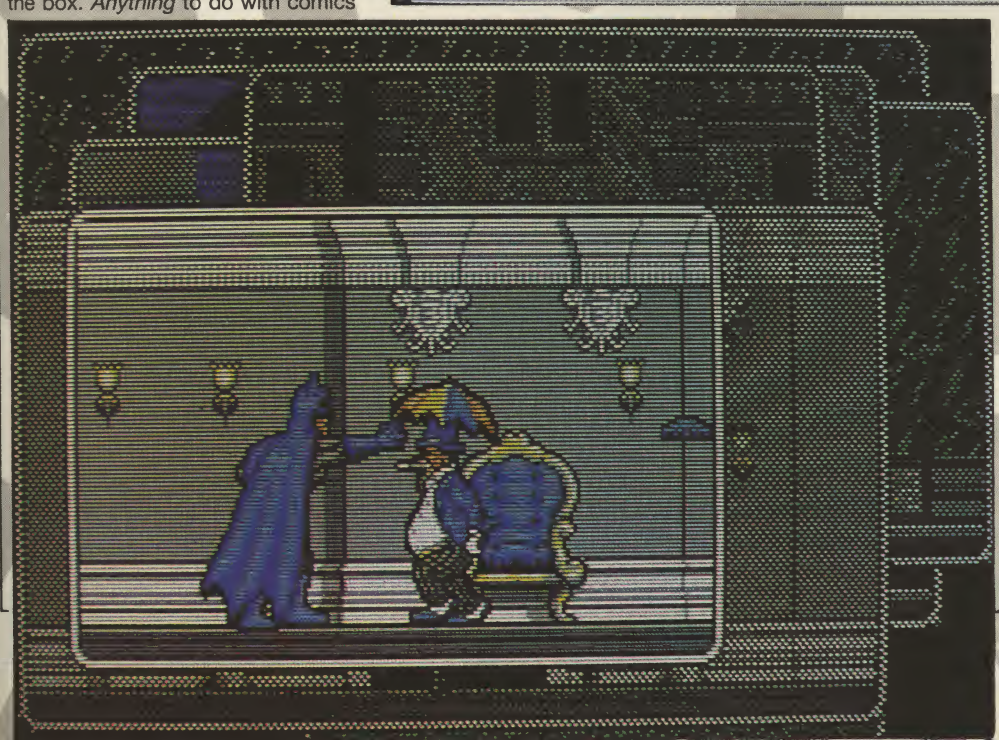


I studied illustration and then I came to games 'cos it's the closet thing to comics. I came straight from college to Palace. So says Joe Walker, a game-designer and graphic artist currently working on *Complex* for Palace.

And it's clear that for him, at least, games offer a perfect opportunity to recreate on computers the atmospheres and vivid imagery of today's 'comics', with all the movement, flexibility, and of course interaction that the printed page does not allow.

Anyway, says Walker, 'comics don't tend to be that flexible anyway 'cos you have to work to a script . . . here I can do as I please.' And he's only one of many programmers living in that Marvellous world – for instance, Gary Liddon, who's just completed arcade adventure *Tyger, Tyger* for Firebird, is one of the biggest fans in the business.

There's much more to the comic influence than licences. As Walker says, 'I work comics into the game . . . I use comic-sort of symbolism in the loading screens and so on. We were hoping to get a comic in the box. *Anything* to do with comics I'm really willing to get into.'



After all, it's surely no coincidence that games and comics so often treat the same themes: sordid cyberpunk-style futurism, androids/cyborgs/etc, impossible missions against overwhelming odds, and sheer nastiness.

And probably the greatest comics influence on the ideas of games-writers has been *2000AD*, now enjoying enormous sales in its 13th year. (Walker: 'I used to like *2000AD* but I don't like it so much now . . . it's gone downhill. A lot of the good artists have gone to America.')

At least, *2000AD* might have held the balance of power till the new generation of graphic novels like Frank Miller's *Batman: The Dark Knight Returns* and, most famous, Alan Moore's enormous project *Watchmen* arrived around 1986.

It's because of those that you have to put quote marks around the word 'comic' now: often deeply pessimistic and, particularly in the case of *Watch-*

men, more subtle than most text novels, they're anything but *Beano*-style comedy.

One-way street?

But the computer game has been around longer than the graphic novel. So why hasn't the influence gone the other way – from the small screen to the artist's table?

True, a few comics, such as *Shatter* and Epic's graphic novel *Iron Man*, have been produced using computers. (There's also now a comic-art package for the Amiga, Gold Disk's *ComicSetter* (TGM**014**), but the detailed colour work of modern graphic novels might as well be produced on a conventional art package and the text added later.)

Nick Landau, Managing Director of Titan Books, which published both *Watchmen* and *Batman: The Dark Knight Returns*, has an answer. 'I would suspect that there are not many computer games that can be taken into other media,' he says. 'I think it's got to be the computer artist working from the comics. It may well go the other way, but I don't think it's developed enough yet.'

Speaking of *Signals*, a Channel 4 series which looked at games and comics for one episode in the New Year, he observes: I appreciated the comics section, I appreciated the games section, but they weren't really compatible. I'm not sure the cross-influences have been realised.'

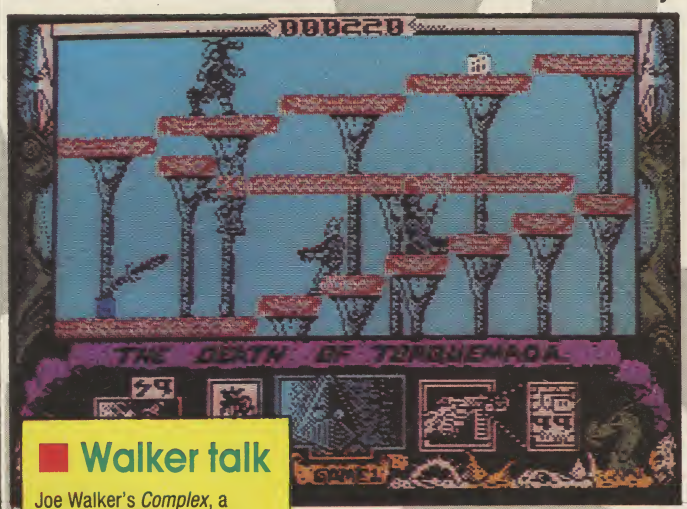
And as for computer technology infiltrating the world of airbrush and hand-drawn lettering, he scoffs – 'I can't see it ever really taking off.

'Comics are such a sort of persona vision. It really depends on the state of the technology – at the moment it's expensive. Anyway, I'm not sure it would then be a personal vision.'

Barnaby Page



You're a sprite, Charlie Brown: the first ever screenshot from Softek's licence of the classic Charles Schulz strip **Peanuts** *(ST screen*



Walker talk

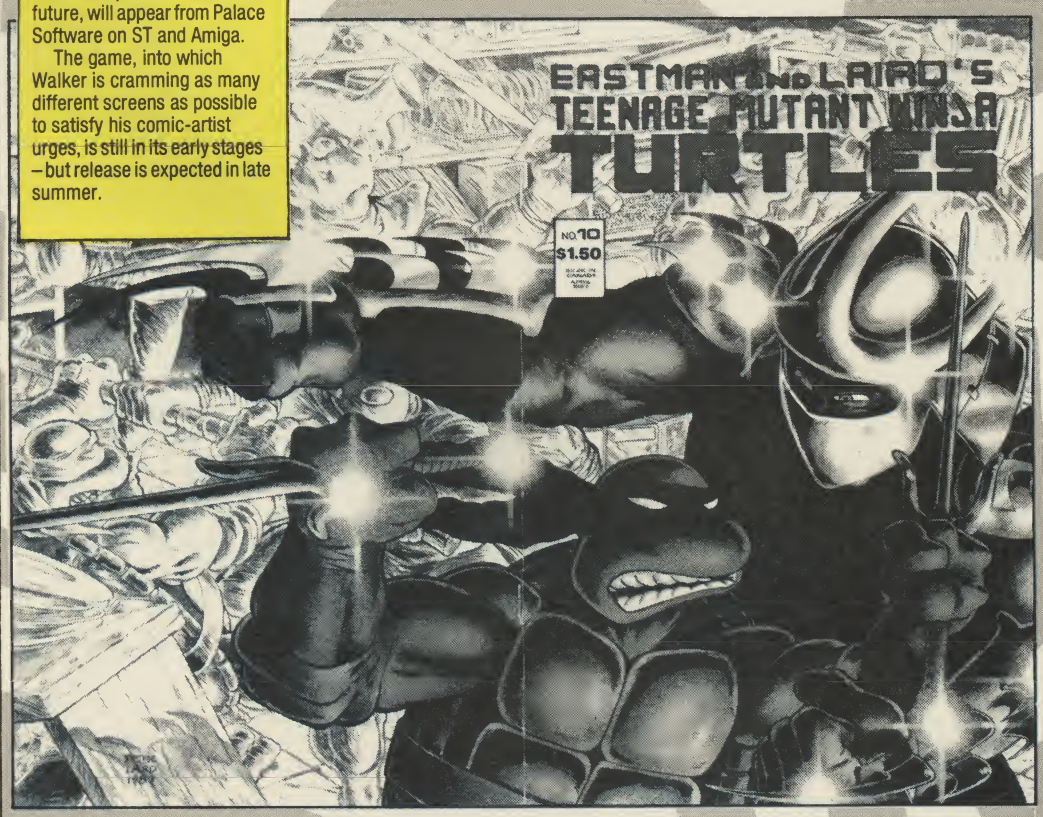
Joe Walker's *Complex*, a comic-inspired flick-screen arcade adventure featuring an 'Enforcer' policeman of the future, will appear from Palace Software on ST and Amiga.

The game, into which Walker is cramming as many different screens as possible to satisfy his comic-artist urges, is still in its early stages – but release is expected in late summer.

Forbidden everywhere

One sign of the comics boom is the growth of Nick Landau's Forbidden Planet specialist chain – starting from a single London site, it now also has shops in Glasgow, Dublin, Brighton, Milton Keynes and Cambridge. And there's Timeslips in Newcastle.

To keep up to date with the new genre, try FEAR, TGM's sister magazine devoted to science fiction, horror, fantasy . . . and of course comics. It's published every two months.



RUNNING OUT OF LICENCES?

'Most of the comic-book characters have now been translated into games,' says Nick Landau of Titan Books. That may be an exaggeration, but it certainly seems that in the last four years nearly everyone from Rupert Bear to *2000AD*'s Strontium Dog has appeared on a computer near you.

Among the earliest were *The Hulk* (Adventure International, 1984) and *Spider-Man* (same software house, a year later); recently, we've had a second *Batman* from Ocean (reviewed in TGM**015**), and now Softek/The Edge are putting *Peanuts* onscreen.

Predictably, *2000AD* characters have been popular licence subjects – already converted are Strontium Dog, Nemesis, Rogue Trooper, Judge Dredd and Slaine.

Judge Death returns

But whatever happened to Judge Death and Halo Jones? Before book publishers Macmillan abandoned their software arm Piranha last year, they'd acquired the licences to both and set programmers to work.

Hungarian team Hobbyte were well into the Judge, Mike Lewis had a fair bit of *The Ballad Of Halo Jones* on display at 1987's *PCW* Show, and Piranha were even planning a game of the *Ace Trucking Co.* strip in *2000AD*.

The man who's dealing with Piranha's unfinished business – Roger Woodham, Managing Director of Macmillan Information Systems – would only tell TGM that 'they've been sold in bits and pieces to various people'. (Asked whether Macmillan would ever return to games software, he gave an emphatic 'absolutely not!' – perhaps a case of Piranha biting off more than it could chew?)

But TGM has also learned that Alternative Software, who own the budget rerelease rights to all the games Piranha actually produced, are negotiating for the Halo Jones licence – presumably for their recently-launched full-price Again Again label. So watch this space.

NEC

PC Engine

"A NEW AGE HAS DAWNED"



Chan + Chan



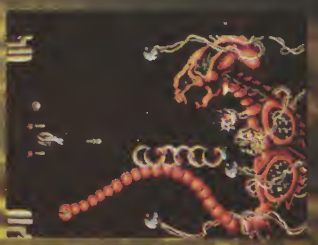
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Galaga 88"



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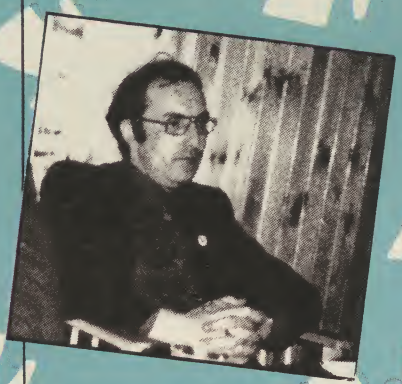
MICRO MEDIA

HELLO! (I MUST BE GOING)

If eating, sleeping and breathing games is such **good fun**, why have so many software stars **cleared off**? **Mel Croucher** investigates.

The Master of Illusion

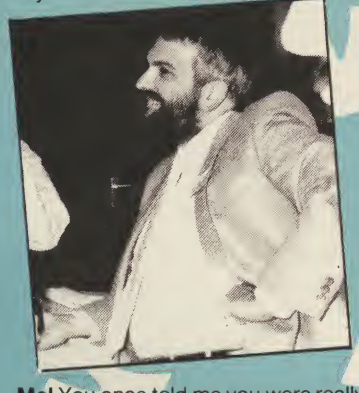
Nigel Backhurst put together the Computer Trade Association in 1982.



Mel You've written games software and computer manuals, you've been troubleshooter for tiny little outfits like Philips and IBM. Did you ever make any money out of computers?
Nigel When I slipped out of Great Britain Ltd, I was up to my ears in debt, that's how much I made out of computers!
Mel Where did you slip away to?
Nigel Holland at first, and now I'm holed up in Germany. No more games software. For the first time ever I can save a bit of money toward my master plan!
Mel Does your master plan involve computers?
Nigel Not on your melly, Nel, er, nelly, Mel. Do you know what I've always wanted to do for a living, and what I'm going to be?
Mel Arrested?
Nigel Possibly. Since I was a child I've only ever wanted to be one thing. Computing was a rather lengthy ten-year sidetrack.
Mel So, what are you going to be?
Nigel A magician! I am absolutely serious. The works, silk cape, magic wand, the Master of Illusion.
Mel Of course, you're completely mad.
Nigel Not as mad as those who create feeble little electronic illusions on computer screens. It was nice while it lasted, but chasing little blobs around a screen and pretending to kill them! Who's mad? Computer games are a con, everyone knows that, all I'm going to do is take the con to its ultimate conclusion. I'm a member of the Magic Circle, I'm a hypnotist, and I'm almost a black belt, so watch it!
Mel I hear you were going to do some writing for a well-known computer magazine.
Nigel I had to let them down. My master plan involves me working over 70 hours a week: that means exhaustion!
Mel Is it true you're involved with black magic?
Nigel You know I'm not. I am a white magician, a follower of the Old Religion. Mind you, I once nearly gave a caller heart failure when I answered the door dressed up in my warlock's regalia!
Mel In the interests of balance, I think I ought to talk to a nonpagan next . . .

God's marketing man

Dave Carlos has edited computer magazines, promoted software and been involved in all aspects of computer entertainment. This year he quit to become a missionary.



Mel You once told me you were really happy in the world of software.
Dave Very happy.
Mel So why did you quit?
Dave God told me to. I am a crusader for Christ, and whereas I used to market software, I'm marketing an evangelical mission now.
Mel How long have you been chatting to God?
Dave I've been a Christian since I was nine years old, but this is the first time God has said to me 'pull out of your secular occupation, and come into my work full-time'.
Mel So you must have felt one hell of a moral conflict over some of the things you were promoting in software! What about gore-spattered knives through eye sockets?
Dave Be assured, I prayed very hard before I started the PR company, and my first project was Domark's *Friday The 13th*. And I sat down and I said to God 'what on earth am I doing here, what's going on?'
Mel What was God's answer, Dave?
Dave The answer was 'just stick in there, say what you think'. I can't say I was upset when that program flopped. I didn't stint, in fact I put in a lot of hard work, but the product just didn't cut it.
Mel To coin a phrase . . .
Dave It could have been worse, Mel. I pulled back a lot of even more over-the-top aspects of *Friday The 13th*. It could have been worse. I've had other conflicts since.
Mel I know you have strong feelings about astrology programs, for example.
Dave I see astrology as a pagan thing, as a very evil thing, not harmless or minor at all. You know your Bible better than most people do, Mel, and the Bible says quite specifically that astrology is evil. I've been offered such programs several times over the years, and I've said 'look, I find this kind of product incredibly evil and I won't be involved' – but I've always taken them to the clients concerned to make up their own minds. I've praised the Lord that they always turned them down.
Mel Well, I find violence much more evil than what you call pagan things. How do you justify your part in that?
Dave I hate violence in computer games. When we were both judging those entries in the CRASH competition I think we agreed that senseless violence was pathetic.
Mel Does your son play shoot-'em-ups?
Dave He's got a Sega system, we share it. We don't have any computer games that involve shooting, there's no gun attachment. In fact he's never had a gun as a toy, ever.
Mel Is there such a thing as Christian software?
Dave There was one guy in a company called Peninsula Software, but he's moved to Australia.
Mel Did you answer my question about the violent software you *were* involved with?
Dave I now feel that I have something to say 'sorry' to God about. I feel that I should have been more evangelical . . . it's something I perhaps regret now, but that's between me and God. I have really enjoyed the software industry. I'd go back to it tomorrow if God told me to.

"It was nice while it lasted, but chasing little blobs around a screen and pretending to kill them! Who's mad?" Nigel Backhurst

Growing up?

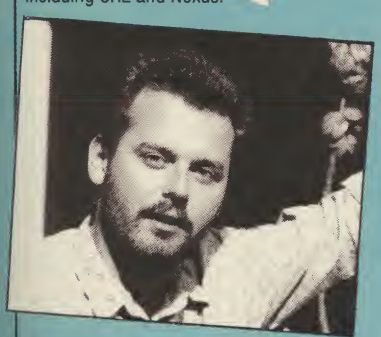
Pat Bitton resigned as Mirrorsoft's leading lady last Christmas.



Mel Your Christmas card said that you'd quit software to take up freelance writing.
Pat Ah, but I might have been lulling you all into a false sense of security. I still find myself on the fringes. I've got to pay the mortgage, and it's only been a few weeks. So I really haven't had time to plan out my future yet.
Mel So you wanted to quit, but you've become addicted?
Pat Are we talking about smoking or software? I just felt I had to spread my wings a bit. I don't know if Mirrorsoft realise I've gone yet, I'm still getting all their memos.
Mel So what are you going to be when you grow up?
Pat You've noticed that I don't think I'm grown-up yet . . .
Mel Ideally, what do you want to do next?
Pat Be just like you, I expect. A bullshitter. See you by the pool under the third palm tree on the left.

The victim

Ian Ellery was instrumental in running several well-known London software houses, including CRL and Nexus.



Mel Why did you quit software?
Ian This better come out right, or else . . . I know where you live, Croucher!
When I left CRL for Nexus, they gave me more money and a company car. But the software business was already down the toilet. Everything was going in circles, it all went back to shoot-'em-ups. A complete waste of time. Really stupid games coming out all over again. Rehashes.
Mel Did you ever make any money out of the computer business?
Ian Nah!
Mel Did anyone you *know* ever make any money out of software?
Ian Nah! No more than any idiot gets on an average salary. But at least that idiot didn't get shat on like I did.
Mel Who shat on you?
Ian Everyone armed with an arsehole. Remember that company car? I paid the deposit, they said they'd take care of the hire-purchase, and when it was all paid off, the car would be mine. When I moved over to Bill Delaney's new venture [Nexus], the car came too. Then I discovered nothing was getting paid off, and the car got repossessed. I quit, Nexus went bust. In my experience, everyone in software gets treated like shit.
Mel Why did you decide to emigrate?
Ian Well, I got backing for a graphic-design studio. I worked hard for three months, and the day after my first public outing, they pulled the plug. I was at an all-time low. I thought Canada seemed like a pretty good prospect. I didn't really mind what I did out there. But family illness got in the way of those plans.
Mel What are you doing these days?
Ian Graphic design, merchandising. I've got a slice of *Roger Rabbit*, you know!
Mel And I thought you were a vegetarian . . . Would you ever work in computer software again?
Ian Never. It's stagnant. Whatever advances there are in technology, it's still the same stuff. I've got no interest at all in computer games any more. Someone must be putting addictive drugs into junk food that makes the kids want to play rubbish computer games, and it also seems to give them acne. There are very few nice people in software, the industry isn't going anywhere, and whenever I raised my head in it, someone shat on me. What a waste of time. Today I'm not earning what I was two years ago, but I'm bloody well happier. Mind you, the software industry is still haunting my life.
Mel You have bad dreams about it?
Ian Worse than that. Yesterday I got a letter from that hire-purchase outfit, about the famous company car that got repossessed. They're asking me to pay the swine off! I've quit software, but it won't leave me alone. It's hanging round my neck like an albatross.

"I've quit software, but it won't leave me alone. It's hanging round my neck like an albatross"
Ian Ellery

Hot and wet

Phillipa Kettle was head of Kettle Research And Promotions till last Tuesday.



Mel For any TGM reader who isn't completely familiar with your career, can you give me a brief synopsis?
Phillipa Well, I suppose it all started while I was still at the convent, when I wrote *Hot Shot Willy* and got offered a job by Dream Silver. It was at Number One for over a year and a half, and by the time I left school with three GCSEs and a minor drugs habit, I had a Ferrari, 100 grand in the Post Office and an interview on *Blue Peter*.
Mel Of course, some sceptics said that all the stories in the newspapers were a weeny bit exaggerated . . .
Phillipa They were just jealous. Any programmer with a second-hand idea and a frontal lobotomy can earn a pile of cash, it's easy.
Mel So you formed your own software house?
Phillipa Right. I decided to launch KRAP after I wrote *Bambo*.
Mel That was the one about the killer fawn?
Phillipa Yes. Got loads of coverage in the Sundays with that one. Then I moved into licensing deals, and got celebrity endorsements.
Mel Crippen, Khomeini, Imelda . . .
Phillipa Marcos, right. I could shift over 250,000 units per title every time. And that was just for the Dragon 32.
Mel So why did you quit software?
Phillipa Look Mel, I'm a millionairess several times over, I've done it all and enjoyed every moment of it. It's time to make way for someone younger and let them have a crack at it. I'm retiring.
Mel How old are you, Phillipa?
Phillipa I'll be 17 next birthday.

Every time you say goodbye . . .

It must be something in the air – the revolving doors of the computer industry have been turning nonstop for weeks, as people jump from job to job in a mass migration mood.

Many of those flocking to rival firms are the unseen powers of the micro world: executives who make the key decisions but manage to keep their names off the games. So the new ideas and new policies they take with them could spell big changes for all computer users.

Among the movers and leavers: Virgin Mastertronic's marketing boss Geoff Heath (now running Mindscape's UK set-up), Nintendo promoter Mike Wensman (back to America), *Your Sinclair* editor Teresa Maughan (to a PR company), Tandy marketing guru Richard Rosser (deeper into PCs), Comet computer-chooser Bill Jack (off the high street), Amstrad software supremo Mike Mordecai (launching his own firm) and eight colleagues (*they* were made redundant), erstwhile TGM ad man Andrew Smales (to sell PC Engines), Telecomsoft spokesperson Clare Edgeley (now at Domark), the same firm's publisher Paul Hibbard and operations manager Steve Perry (both now at MicroProse), plus three Telecomsoft sales managers . . . phone home!

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The future looks dark

TWILIGHT 2000

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Eleven years into the future the Earth is deep in the grip of a catastrophic global war. For five years, nuclear, biological and chemical weapons have ravaged the planet. With the famine and disease that followed the battle, more than half the world's population are dead and billions are sick or starving.

As the war advanced, the destruction of industry and of transport and communications systems brought about the total collapse of civilian government. Only the various conflicting armies maintained any real cohesion, and even the military command structure became increasingly fragmented as vital equipment broke down and supplies become exhausted with no possibility of replacement.

Players in *Twilight 2000* must face this bleak reality as they take the role of soldiers in one of these shattered armies, scavenging for food and fuel, and struggling for day-to-day survival across the radiation-shrouded wastelands that are the battlefields of Europe.

Twilight 2000 is unusual amongst role-playing games for the sombre nature of its subject matter. Most RPGs offer an optimistic, escapist setting for players to explore, and even those with a downbeat slant tend to have some positive element. *Paranoia*'s dark future, for instance, is used as the basis of a hilariously ironical game, and even horror games such as *Call of Cthulu* tend to be set in a fictionalised past that distances players from the awful events included. But in *Twilight 2000* West End Games have produced something quite different – a near-future game that gives players little chance to forget how close to home its horrors are taking place. The setting is no alternative reality but a devastatingly plausible future, providing a uniquely thought-provoking atmosphere. The rules of *Twilight 2000* bear a number of similarities to its more recent stablemate *Traveller 2300*, and are presented in a similar style. The material is split between two card-covered rulebooks, one for players and one for referees, with miscellaneous extra goodies in the shape of various forms and record sheets, an equipment list, a short introductory adventure booklet and a colour campaign map of the war zone in Poland.

The character generation procedure reflects the military setting in which the players find themselves. As well as determining standard characteristics such as intelligence and strength, players also roll dice to find out the coolness under fire, military experience and rank of the character they will play. A more sinister characteristic roll is for Rads - this determines the cumulative level of radiation exposure a character has suffered, rising through further exposure in contaminated areas.

Once these basic characteristics have been chosen, players purchase skills and abilities for their new character using a points system. Skills that may be selected include ability to pilot various types of aircraft, foraging (to find food in the wild), engineering and so on - all the skills needed to survive in a hostile environment. The combat options that may be chosen range from use of nuclear warheads to long bows – an illustration of the contrasts five years of destruction has brought about!

The remainder of the players manual provides background detail about the problems of day-to-day survival in the game world (including rules for catching fish with grenades and distilling alcohol to fuel petrol-starved vehicles) and introduces the basics of the skill and combat systems.

The *Twilight 2000* skill system is simple but adequate. Each time a player character wishes to attempt something challenging, the referee rates the desired action as a Task. Each task has a rating - Easy, Average or Difficult - and a particular skill or attribute which is important to performance of that task. The combination of the two gives a number which represents the dice score needed for success. Thus an attempt to fix a minor breakdown would be an Easy task based on the Mechanic skill, and a player would have to score twice that skill level or less to repair the vehicle. The combat system is similarly straightforward, providing fast moving play with no need to refer to charts or tables, and yet able to incorporate all the features of modern skirmish warfare - anti-tank missiles, mines, vehicles of a whole range of types, chemical weapons and so on.

The referee's manual also includes an Encounters section, with suggestions on how to handle the variety of often-deadly situations that characters may come across in their adventures, such as military convoys, refugees, ambushes and the craters left by tactical nuclear missiles. Rules are also given for various other nasties for referees to inflict on hapless players, such as typhoid, cholera and bubonic plague, together with details of how these diseases are contracted, the symptoms and possible treatment.

The manual concludes with further background material in the form of a historical outline of the five years of war, plus some details of war-ravaged Poland and the surviving armed forces that inhabit it. Poland is the setting for introductory adventure booklet, *Escape from Kalisz*, which gives both players and referee the chance to gain familiarity with the rules and backgroud as they try to make their way to safety after a disastrous battle in which the US 5th Division was virtually wiped out.

On the whole *Twilight 2000* is simply but effectively presented. Neither the rules nor the background material are particularly extensive, but they are quite adequate for a referee who doesn't mind using his or her imagination to expand on the details of the game as required. The bleak atmosphere of the imagined future is kept up well, and considerably enhanced by a number of black-and-white sketches scattered throughout the rules. The downbeat, devastated world of *Twilight 2000* certainly won't appeal to all roleplayers but its unique and stimulating setting provide a very different challenge to the imagination than that offered by other, more lighthearted games. Not a game to return to week after week maybe, but for a complete change of style it's well worth a play.



***Death, doom, catastrophe and it's only 11 years away - the future world according to* Twilight 2000**

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CREATURE FEATURE

It was a dark and stormy night. Doctor Totleben switched on the machine and gazed, half in awe and half in revulsion, at the monstrous thing he had created. Then he decided to send it in to TGM's Autumn Computer Art Show 1988 – where it joined the **pixelated terrors** shown here.



■ Mustafa Chaudrey may be 'a quiet young chap' – by his own admission – but his artwork is certainly attention-grabbing. Doctor Of Beasts was drawn on Amiga Deluxe Paint II using a restricted palette, mainly made up of different shades of purple, to give that dark menacing appearance.





■ Evil is another of Sharon Long's award-winning pieces. It received a third placing in the art show, along with Mosaic (which appeared in TGM013).

■ P B Fox hopes to forge a career in graphic design – and he certainly seems to be going the correct way about it. Wormhead was drawn on the ST using Degas Elite. It started out as a conventional portrait, but developed into a striking fantasy picture through experimentation with Degas's block functions.



■ This raven picture is one of many available on Amiga public-domain disks from Seventeen Bit Software. It costs £3 to join the club, and that includes the latest edition of their disk-based magazine; any disks you may buy later retail at £2.5 each. For a full list of programs, utilities and demos contact Seventeen Bit Software, *PO Box 97, Wakefield WF1 1XX* ☎ (0924) 366982.



● Stewart Graham's Hell was inspired by the work of TGM/CRASH/ZZAP! cover-designer Oliver Frey. Stewart used Amiga Deluxe Paint II's SHADE and BLEND features to create the atmospheric shading.

BOX CLEVER WITH LINEL

- **BECOME The Champ . . .**
- **WIN the trophy . . .**
- **GUZZLE 10lb of chocolate!**

You've heard of retired boxers going to pot, but this is ridiculous – Linel are offering a 12-inch-high **trophy** to the winner of their competition. And that person becomes *The Champ* in more ways than one, because Linel are also throwing in a copy of the Amiga boxing game (previewed in TGM**016**) plus ten pounds of **Swiss chocolate**.

For ten **runners-up** there are copies of the game and a pound of chocolate each. And don't despair if you're an ST-owner – in that case, Linel will happily substitute the latest Herbie Stone game, *Dugger* (also in TGM**016**).

There are **two ways to win**:

1 You travel to Las Vegas, keep on holding Mike Tyson round the neck, lose gracefully, apologise to the Great British Public on the BBC, and win £2 million. Then you can afford all the chocolate you want, even after private-hospital fees.

2 The second method, which we recommend to less experienced boxers, is to answer the four questions below . . .

1 Which of the following is *not* a class of boxer? *a)* light-fly, *b)* feather, *c)* middle-welter.

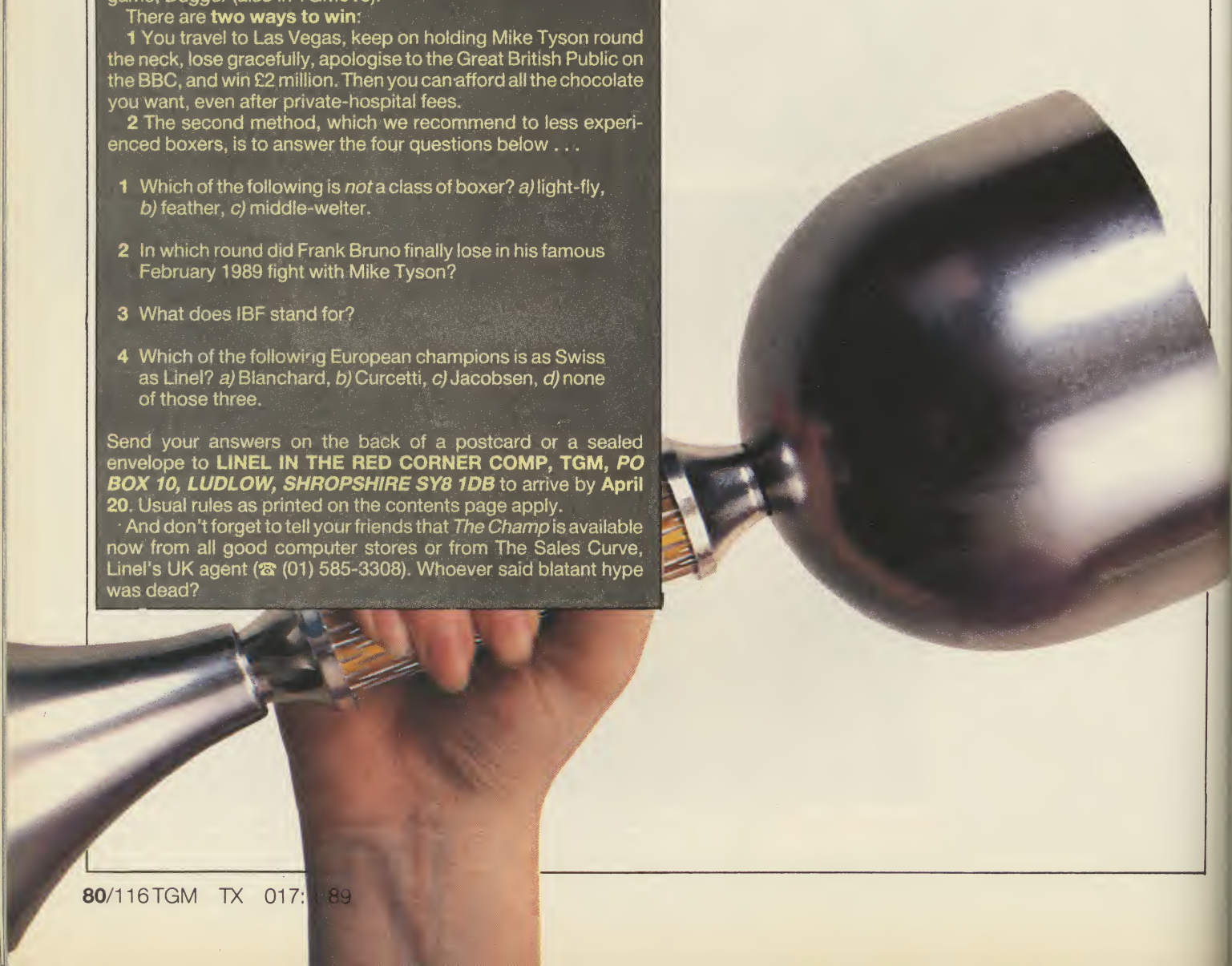
2 In which round did Frank Bruno finally lose in his famous February 1989 fight with Mike Tyson?

3 What does IBF stand for?

4 Which of the following European champions is as Swiss as Linel? *a)* Blanchard, *b)* Curcetti, *c)* Jacobsen, *d)* none of those three.

Send your answers on the back of a postcard or a sealed envelope to **LINEL IN THE RED CORNER COMP, TGM, *PO BOX 10, LUDLOW, SHROPSHIRE SY8 1DB*** to arrive by **April 20**. Usual rules as printed on the contents page apply.

And don't forget to tell your friends that *The Champ* is available now from all good computer stores or from The Sales Curve, Linel's UK agent (☎ (01) 585-3308). Whoever said blatant hype was dead?



520ST-FM SUPER PACK



The Atari Super Pack is ideal for you if you want to get off to a flying start with the best in entertainment software. The Pack includes a 520ST-FM with ½Mb RAM, a built-in 1Mb disk drive, over £450 of top games and a joystick. If you buy the Super Pack at Silica Shop, we will add our own ST Starter Kit (worth over £200), Free Of Charge. Return the coupon for details.

£399 INCLUDING VAT

1Mb DISK DRIVE
£450 OF SOFTWARE

ARCADE GAMES

Arkanoid II	Imagine	£19.95
Beyond The Ice Palace	Elite	£19.95
Black Lamp	Firebird	£19.95
Buggy Boy	Elite	£19.95
Chopper X	Mastertronic	£9.99
Ikari Warriors	Elite	£14.95
Marble Madness	Electronic Arts	£24.95
Quadrallen	Logotron	£19.95
Ranarama	Hewson Consultants	£19.95
Return To Genesis	Firebird	£19.95
Roadwars	Melbourne House	£19.95
Starquake	Mandarin	£19.95
Test Drive	Electronic Arts	£24.95
Thrust	Firebird	£9.95
Thundercats	Elite	£19.95
Wizball	Ocean	£19.95
Xenon	Melbourne House	£19.95
Zynaps	Hewson Consultants	£19.99

SPORTS SIMULATIONS

Eddie Edwards Super Ski	Elite	£19.95
Seconds Out	Tynesoft	£19.95
Summer Olympiad '88	Tynesoft	£19.95

PRODUCTIVITY SOFTWARE

Organiser	Triangle Publishing	£49.95

JOYSTICK

Atari CX40 Joystick	Atari Corp	£4.99

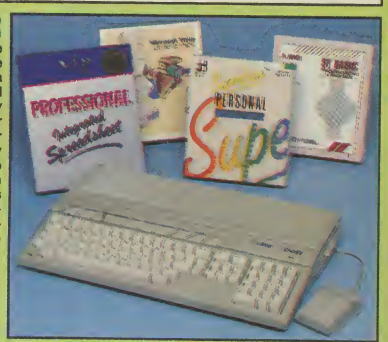
FREE ATARI BUNDLE VALUE: £458.97

With SM124 mono monitor: £498 INC VAT With SC1224 colour monitor: £698 INC VAT

1040ST-FM PROFESSIONAL PACK

NOW WITH TV MODULATOR

For the serious home user and the small business, we are pleased to announce a new package based around the 1040ST-FM. The 1040ST-FM has 1Mbyte RAM and a 1Mbyte built-in disk drive. In addition, the 1040ST-FM now comes with a TV modulator built-in. (The previously available 1040ST-F was designed for use with a monitor only and did not come with a modulator.) This modulator allows the 1040ST-F to be plugged directly into any domestic TV set, and comes complete with a lead to allow you to do so. The new 'Professional Pack' from Silica includes the new 1040ST-FM with modulator plus four high quality software packages including a spreadsheet, database, word processor and programming language. This 'Professional Pack' software will enable you to get straight down to business with your new computer. In addition to this software (worth £384.84), if you buy the Professional Pack from Silica Shop, you will also receive the Silica ST Starter Kit (worth over £200), Free Of Charge. Return the coupon for further information.



£499 INCLUDING VAT

With SM124 mono monitor: £598 INC VAT
With SC1224 colour monitor: ... £798 INC VAT

ATARI 1040ST-FM	(Computer)	£499.99
VIP PROFESSIONAL	(Spreadsheet)	£149.95
MICROSOFT WRITE	(Word Processor)	£149.95
SUPERBASE PERSONAL	(Database)	£59.95
BASIC DISK & MANUAL	(Language)	£24.98

NORMAL RRP: £884.82
LESS DISCOUNT: -£385.82
PROFESSIONAL PACK PRICE: £499.00

2Mb & 4Mb MEGA ST

The MEGA ST computers are styled as as lightweight keyboard with a separate CPU, connected by a coiled telephone style cable. There are two versions of the MEGA ST, one with 2Mbytes of RAM and the other with 4Mbytes. Each version has a 1Mbyte double sided disk drive built-in to the CPU unit. The MEGA ST's do not come with modulator built-in and must therefore be used with a monitor. With every MEGA ST purchased, we will add the 'Professional Pack' software (worth £384.83) detailed above, plus the Silica ST Starter Kit (worth over £200) both Free Of Charge. Return the coupon for further details.



2Mb MEGA ST
£899 INC VAT
+mono monitor=£998
+colour monitor=£1198

4Mb MEGA ST
£1199 INC VAT
+mono monitor=£1298
+colour monitor=£1498

DTP PageStream £149 +VAT =£171.35

Desktop Publishing (DTP) is one of the fastest growing applications for personal computers. We are pleased to announce a powerful low cost package for the Atari ST called PageStream. PageStream costs only £149 (+VAT=£171.35) and, because it works with an Atari 1040ST and a Seikosha SP-180AI printer, you can be up and running with a complete system for less than £1000. Some of the features of PageStream are listed to the right. If you would like further information on this program, complete and return the coupon below, ticking the 'DTP' box in the corner.

* TEXT-FLOW AROUND GRAPHICS
* ROTATION OF TEXT & GRAPHICS
* SLANT OR TWIST ANY OBJECT
* POSTSCRIPT COMPATIBLE
* TAG FUNCTION
* AUTO/MANUAL KERNING & HYPHENATION
* GROUPING OF OBJECTS

DO YOU OWN AN ATARI ST?

If you already own an Atari ST computer and would like to be registered on our mailing list as an ST user, let us know. We will be pleased to send you copies of our price lists and newsletters FREE OF CHARGE as they become available. Complete the coupon and return it to our Sidcup branch and begin experiencing a specialist ST service that is second to none.

SILICA SHOP:

SIDCUP (& Mail Order) **01-309 1111**
1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX
OPEN: MON-SAT 9am - 5.30pm *LATE NIGHT:* FRIDAY 9am - 7pm

LONDON **01-580 4000**
52 Tottenham Court Road, London, W1P 0BA
OPEN: MON-SAT 9.30am - 6.00pm *LATE NIGHT:* NONE

LONDON **01-629 1234 ext 3914**
Selfridges (1st floor), Oxford Street, London, W1A 1AB
OPEN: MON-SAT 9am - 6.00pm *LATE NIGHT:* THURSDAY 9am - 8pm

ATARI ST

ST COMPUTERS

The range of Atari ST computers offers something for everyone. From the games enthusiast who wants the challenge of the very best in arcade action, to the businessman who wants to make financial forecasts or faultless presentations. The ST offers high quality graphics, sound and speed for the gamer, whilst providing a fast, user friendly and affordable solution to business. The ST is now firmly established in the home environment and boasts a wealth of users in education, local government, television, and a variety of different businesses. Software for the range stretches to cover applications as diverse as ENTERTAINMENT, ACCOUNTS, ART, COMMUNICATIONS, COMPUTER AIDED DESIGN, DATABASES, DESKTOP PUBLISHING, EDUCATION, MUSIC, PROGRAMMING, SPREADSHEETS, WORD PROCESSING and more. For a full list of the software available, as well as details of the ST range, complete and return the coupon below.

All prices correct at the time of going to press. E&OE.

520ST-FM EXPLORER PACK
WITH BUILT-IN 1Mb DISK DRIVE



The value for money offered by the Atari ST range is reflected in the Explorer Pack featuring the 520ST-FM computer with 512K RAM. The 520ST-FM computer now comes with a built-in 1 Mb double sided disk drive as well as a free mouse controller and a built-in TV modulator. The new 520ST-FM Explorer Pack includes the 520ST-FM computer, the arcade game Ranarama, a tutorial program and some useful desktop accessories. In addition, if you buy the Explorer Pack from Silica, we will give you the Silica ST Starter Kit worth over £200, FREE OF CHARGE. Return the coupon for details of our Starter Kit and of the full ST range.

£260

ONLY **£2.51** PER WEEK
RETURN COUPON FOR DETAILS

+VAT= **£299**

+ SM124 mono monitor: £398 INC VAT + SC1224 colour monitor: £598 INC VAT

WHY SILICA SHOP?

Before you decide when to buy your new Atari ST computer, we suggest you consider very carefully WHERE you buy it. There are MANY companies who can offer you a computer, a few peripherals and the top ten selling titles. There are FEWER companies who can offer a wide range of products for your computer and expert advice and help when you need it. There is ONLY ONE company who can provide the largest range of Atari ST related products in the UK, a full time Atari ST specialist technical helpline and in-depth after sales support, including free newsletters and brochures delivered to your door for as long as you require after you purchase your computer. That one company is Silica Shop. We have been established in the home computer field for ten years with an annual turnover in excess of £8 million and can now claim to meet our customers requirements with an accuracy and understanding which is second to none. But don't just take our word for it. Complete and return the coupon below for our latest literature and begin to experience the Silica Shop specialist Atari service.

SILICA STARTER KIT: Worth over £200, FREE with every Atari ST computer bought from Silica.
PROFESSIONAL PACK: Free business software with 1040ST-FM and MEGA ST's bought from Silica.
DEDICATED SERVICING: 7 full-time Atari trained staff with years of experience on Atari servicing.
THE FULL STOCK RANGE: All of your Atari requirements from one place.
AFTER SALES SUPPORT: The staff at Silica are dedicated to help you get the best from your ST.
FREE CATALOGUES: Mailed direct to your home as soon as we print them, featuring offers as well as all of the new releases.
FREE OVERNIGHT DELIVERY: On all hardware orders shipped within the UK mainland.
PRICE MATCH PROMISE: We will match competitors on a 'same product same price' basis.
FREE TECHNICAL HELPLINE: Full time team of Atari technical experts always at your service.

FREE SILICA STARTER KIT WORTH OVER £200

WITH EVERY ST - RETURN COUPON FOR DETAILS
ALL PRICES QUOTED INCLUDE FREE UK DELIVERY

To: Silica Shop Ltd, Dept CRASH 0489 1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX

PLEASE SEND FREE LITERATURE ON THE ATARI ST

Mr/Mrs/Ms: Initials: Surname:

Address:

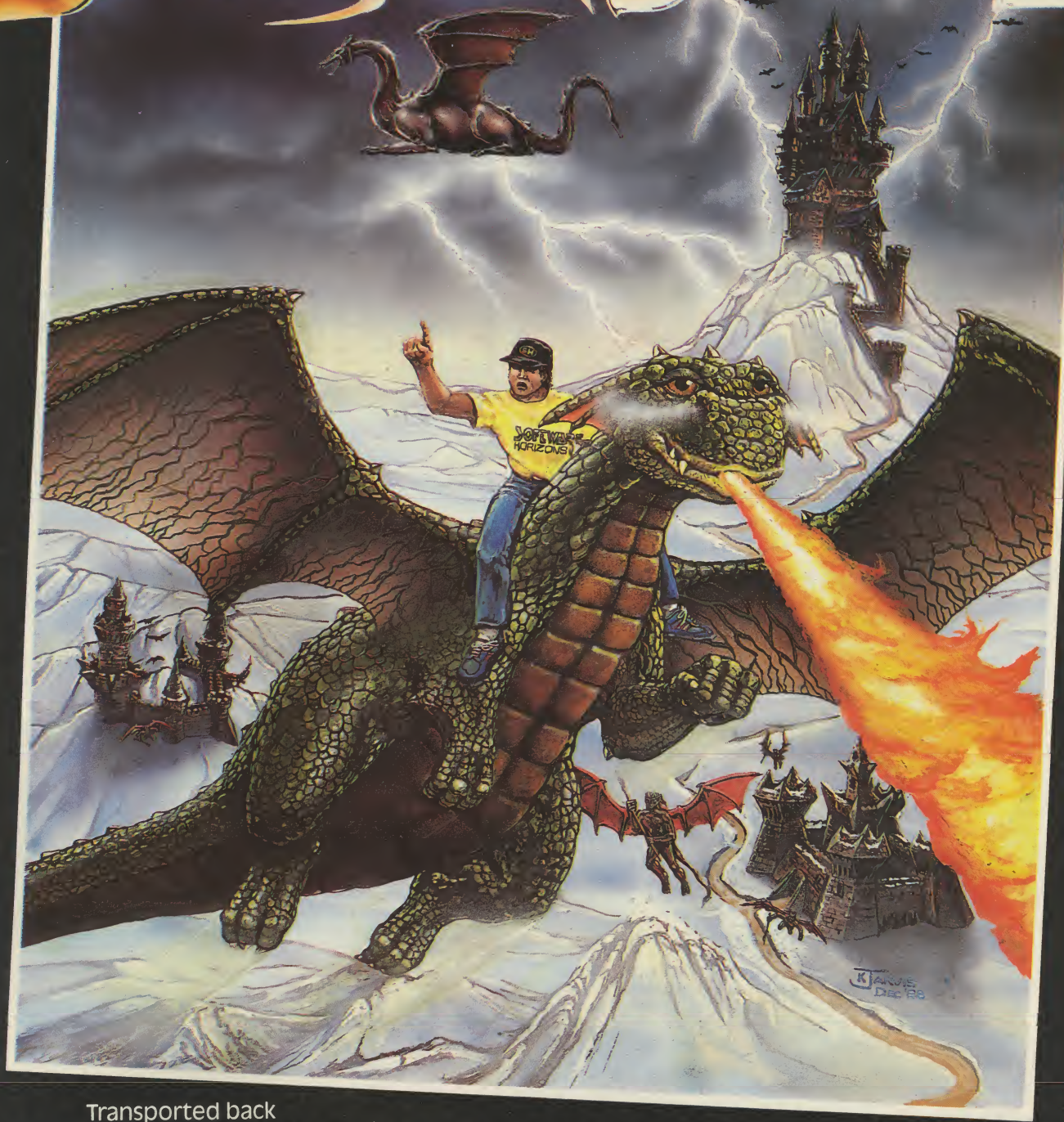
.....

.....

Postcode:

Do you already own a computer
If so, which one do you own? DTP ☐

DRAGONSCAPE



Transported back
in time and space to an unknown era . . .
You must stop the evil curse that has descended on the once beautiful lands of Tuvania.
Together with your trusty dragon Garvan, you are Tuvania's only hope.

★ Smooth 8-way scrolling playfield ★ Search for hidden objects and avoid traps
★ Interactive background ★ 5 different levels of fast and furious action

Weird and wonderful characters will
help and hinder your progress against the curse of Kaos.

FIRE BREATHING FUN FOR YOUR ST AND AMIGA*

ONLY £19.95

Available from all good stockists or direct from

SOFTWARE
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TELEPHONE: 01-348-4577

* Please check availability of versions

We ask the questions

You win the prizes

Help make the world an even better place to live in by answering this year's TGM reader survey – and you could win one of 30 prizes into the bargain!

We need your help to keep improving TGM; we need to know what you like and what you don't. So just go through the questionnaire, ticking boxes as appropriate, send the lot in to **TGM READER SURVEY, PO Box 10, Ludlow, Shropshire** – and write your name and address on the back of the envelope (not on the questionnaire itself).

You'd be well-advised to get it in by **May 1**, because that's when we're going to draw 30 envelopes, each of which will win a TGM prize – it could be a binder, a calendar, a T-shirt, or anything.

1) HOW OLD ARE YOU? 15

2) ARE YOU *(tick one)* . . .
Male ☑ 1 Female ☐ 2

3) ARE YOU *(tick one or none)* . . .
at school ☑ 1
at college ☐ 2
in higher education (university, poly etc) ☐ 3

4) ARE YOU *(tick one or none)* . . .
working part-time ☑ 1
working full-time ☐ 2
unemployed ☐ 3

5) IF YOU ARE EMPLOYED, what is your occupation?
PAPEROUND
for office use only: ☐

6) IF YOU ARE NOT EMPLOYED, what is your intended career?
ELECTRONICS
for office use only: ☐

7) HOW MANY GAMES do you buy on average per month? *(tick one box in each column)*

	Full-price	Budget
1	☑ 1	☑ 1
2	☐ 2	☐ 2
3-5	☐ 3	☐ 3
6-10	☐ 4	☐ 4
11+	☐ 5	☐ 5

8) WHICH COMPUTER(S) do you own at present, and which do you intend to buy during the next year?

	Own	Intend to buy
Atari ST	☐ 1	☐ 1
Amiga	☑ 2	☐ 2
PC-compatible	☐ 3	☐ 3
Spectrum	☐ 4	☐ 4
C16/64/128	☐ 5	☐ 5
Amstrad CPC	☐ 6	☐ 6
Amstrad PCW	☐ 7	☐ 7
BBC	☐ 8	☐ 8
MSX	☐ 9	☐ 9
Sinclair QL	☐ 10	☐ 10
Atari XL	☐ 11	☐ 11
Archimedes	☐ 12	☐ 12
Apple	☐ 13	☐ 13

other (please state)

for office use only ☐

9) WHICH GAME CONSOLE(S) do you own, and which do you intend to buy during the next year?

	Own	Intend to buy
Nintendo 8-bit	☐ 1	☐ 1
Sega 8-bit	☐ 2	☐ 2
PC Engine	☐ 3	☐ 3
Nintendo 16-bit	☐ 4	☐ 4
Sega Megadrive	☐ 5	☐ 5
Konix Multi-System	☐ 6	☐ 6
Atari VCS	☐ 7	☐ 7
Colecovision	☐ 8	☐ 8

10) WHAT INFLUENCES YOU MOST when you buy software? *(tick one)*

Review	☑ 1
Preview	☐ 2
Advert	☐ 3
Friend's recommendation	☐ 4
Arcade conversion	☐ 5
Film/TV tie-in	☐ 6
Reputation of software house	☐ 7
Reputation of author	☐ 8
Price	☐ 9
Packaging or display in shop	☐ 10

11) WHICH OF THESE PERIPHERALS do you own, and which do you intend to buy in the next year?

	Own	Intend to buy
Disk drive	☑ 1	☐ 1
Laser disk	☐ 2	☐ 2
Printer	☐ 3	☐ 3
Monitor	☐ 4	☑ 4
Modem	☐ 5	☐ 5
Joystick	☐ 6	☐ 6
Memory expansion	☐ 7	☑ 7
Hard disk	☐ 8	☐ 8
Graphics tablet/light pen	☐ 9	☐ 9
Mouse	☑ 10	☐ 10
MIDI interface	☐ 11	☐ 11
Music keyboard	☐ 12	☐ 12
Other music equipment	☐ 13	☐ 13

12) WHICH APPLICATIONS SOFTWARE do you own, and which do you intend to buy in the next year?

	Own	Intend to buy
Word processor	☐ 1	☐ 1
Art utility	☐ 2	☐ 2
Music	☐ 3	☐ 3
Programming	☐ 4	☐ 4
DTP	☐ 5	☐ 5
Database	☐ 6	☐ 6
Game-creation kit	☑ 7	☑ 7
Financial	☐ 8	☐ 8
Integrated package	☐ 9	☐ 9

13) WHAT IS YOUR WEEKLY INCOME after tax? £ 10 50
£10.50p

14) WHICH WAS THE FIRST ISSUE OF TGM you bought? *(Please give the issue number – eg this is Issue 17.)* 11

15) HOW MANY TIMES have you bought TGM, altogether? 17

16) WHAT OTHER COMPUTER MAGAZINES do you buy? *(tick Regularly, Occasionally or Never as appropriate for each magazine)*

	Regularly	Occasionally	Never
ACE	☐ 1	☑ 1	☐ 1
C+VG	☐ 2	☑ 2	☐ 2
The One	☑ 3	☐ 3	☐ 3
ST Amiga Format	☐ 4	☑ 4	☐ 4
ST Action	☐ 5	☐ 5	☐ 5
ST World	☐ 6	☐ 6	☐ 6
Atari ST User	☐ 7	☐ 7	☐ 7
Page 6	☐ 8	☐ 8	☐ 8
Amiga User Int'l	☐ 9	☑ 9	☐ 9
Your Amiga	☐ 10	☐ 10	☐ 10
Amiga World	☐ 11	☑ 11	☐ 11

PRESS ANY KEY

YOU

Amiga Computing	12	✓2	12
PC Plus	13	13	13
CCI	14	14	14
Commodore User	15	15	15
Commd're Disk User	16	16	16
ZZAP!	17	✓17	17
CRASH	18	✓18	18
Sinclair User	19	✓19	19
Your Sinclair	20	✓20	20
Amstrad Action	21	21	21
Pop Comp Wkly			
	22	22	22
New Comp Express	23	23	23
Computer Shopper	24	24	24
Micro Comp Mart	25	25	25
Personal Comp Wrld	26	26	26

17) NAME YOUR FAVOURITE magazine or newspaper not about computers.

METAL HAMMER

for office use only ☐

18) WHAT KIND OF GAMES do you like most? *(tick as many as necessary)*

Adventures	☐1
Arcade adventures	✓2
Shoot-'em-ups	✓3
Simulations	✓4
RPG	✓5
Strategy	☐6

19) WHAT DO YOU THINK OF TGM? *(tick one box for each item)*

	Excellent	Good	OK	Rubbish
News	✓4	3	2	1
Previews	4	✓3	2	1
Reviews	✓4	3	2	1
Adventure	✓4	3	2	1
Fantasy/RPG	✓4	3	2	1
Coin-ops	4	✓3	2	1
Playing tips	4	3	✓2	1
Charts	4	✓3	2	1
Consoles	4	✓3	2	1
Competitions	4	✓3	2	1
Cutey Poo	4	3	✓2	1
Cyberpunk	4	3	✓2	1
Future-tech	4	✓3	2	1
Gallery	4	✓3	2	1
Music	4	3	✓2	1
General features	✓4	3	2	1
Mel Croucher	4	✓3	2	1
Back Bytes	4	3	✓2	1
Readerpage	4	✓3	2	1
Information Desk	✓4	3	2	1
Hardware guide	✓4	3	2	1
Repair services	4	3	✓2	1
Toolbox	4	3	✓2	1
Controversy	4	3	✓2	1
Trivia quiz	4	✓3	2	1
Hypermarket	4	✓3	2	1
Advertisements	4	✓3	2	1

20) WHAT SHOULD BE IN TGM? *(tick as many as necessary)*

Play by mail	✓1
Comms	☐2
Boardgames	✓3
Technotoys	✓4
Videos/films	✓5
Comics	☐6
Other	

for office use only ☐

21) HOW MANY OTHER PEOPLE usually read your copy of TGM? 0

22) WOULD YOU LIKE COVER-MOUNTED cassettes or disks on TGM?

Yes	✓1
No	☐2

(if No, go to question 27)

23) WHAT KIND OF COVER MOUNTS would you like to see?

Playable demos of new games	☐1
Complete old games	✓2
Programming utilities	☐3
Art utilities	☐4
Music utilities	☐5
Other utilities	☐6
Art or music demos	✓7

24) WOULD YOU LIKE COVER-MOUNTED freebies, such as screen wipes, pens and small marsupials, on TGM?

Yes	☐1
No	✓2

25) IS TGM REASONABLY PRICED?

Yes	✓1
No	☐2

26) ARE THE REVIEWS detailed enough?

Yes	✓1
No	☐2

27) ARE THE REVIEWS long enough?

Yes	✓1
No	☐2

28) ARE THERE ENOUGH REVIEWS?

Yes	☐1
No	✓2

29) ARE THERE ENOUGH SCREENSHOTS?

Yes	☐1
No	✓2

30) ARE THE SCREENSHOTS big enough?

Yes	✓1
No	☐2

31) ARE THE COMMENTS for each format long enough?

Yes	✓1
No	☐2

32) HOW OFTEN DO YOU AGREE with the reviews?

Always	☐1
Mostly	✓2
Rarely	☐3
Never	☐4

33) HOW OFTEN DO YOU USE TGM as a source of reference when buying software?

Always	✓1
Sometimes	☐2
Never	☐3

34) DO YOU HAVE A BANK ACCOUNT?

Yes	✓1
No	☐2

(if No, go to question 49)

35) WHICH BANK?

Barclays	✓1
Nat West	☐2
Midland	☐3
Lloyds	☐4
TSB	☐5
Post Office/National Giro	✓6
Royal Bank Of Scotland	☐7
Yorkshire	☐8
Other	

for office use only ☐

36) DO YOU HAVE a building-society account?

Yes	☐1
No	✓2

(if No, go to question 51)

37) WHICH BUILDING SOCIETY?

Staffordshire	☐1
Halifax	☐2
Abbey National	☐3
Nationwide Anglia	☐4
Leeds	☐5
Woolwich	☐6
Britannia	☐7
Alliance & Leicester	☐8
Bradford & Bingley	☐9
National & Provincial	☐10
Cheltenham & Gloucester	☐11
Gateway	☐12
West Bromwich	☐13
Other	

for office use only ☐

38) WHICH OF THE FOLLOWING do you own, or intend to buy in the next year?

	Own	Intend to buy
Video recorder	☐1	✓1
Video camera	☐2	☐2
Portable stereo	☐3	☐3
CD player	☐4	✓4
Hi-fi	☐5	☐5
Satellite dish	☐6	☐6

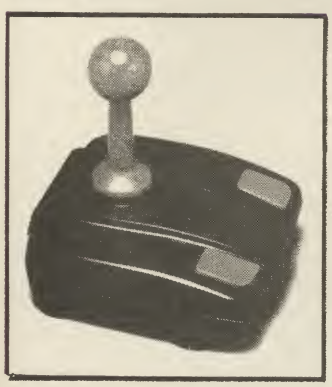
The Games machine

SHOPPING

KONIX NAVIGATOR
Brand new ergonomically designed hand-held joystick with Fire button positioned directly beneath the trigger finger for super-fast reactions. Unbreakable solid steel shaft. **OFFER 14.99**,T235H



KONIX MEGABLASTER
Precision moulded control knob with steel shaft for complete reliability. Dual fire buttons for left or right hand use. Heavy duty leaf switches provide directional control with long lasting operation. Includes suckers for table top fixing.
OFFER 6.99, T236H



KONIX SPEEDKING
The joystick that actually fits your hand, with a fire button angled for your trigger finger to ensure accurate high-speed action. Solid steel breakproof shaft with neat clicking sound.
OFFER 10.99, T246H



EUROMAX MICRO-HANDLER
An array of features to get those trigger fingers twitching: extra-sensitive micro-switch-action stick, two integrated paddles, continuously adjustable autofire, extra large fire buttons and a solid metal casing with rubber suction cups for added grip. Comes complete with an extra long cord for ultimate ease of play. Be a winner with the Micro-Handler!
OFFER 19.95, T300H



EUROMAX COBRA
Brand new design with 8 microswitches. 3 Auto fire buttons and single normal fire button provide trigger readiness at all times! With suction feet and extra long cord.
OFFER 11.95, T301H

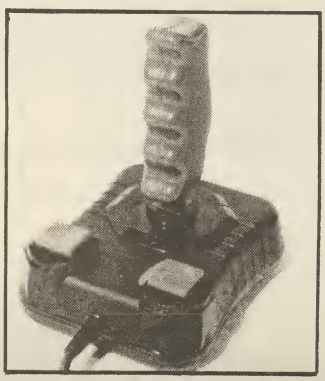


EUROMAX PROFESSIONAL STANDARD
High durability, rapid response and ultra sensitive movement accuracy from this advanced ergonomic design.
OFFER 15.95, T239H

EUROMAX PROFESSIONAL AUTOFIRE
OFFER 18.95, T241H

EUROMAX ELITE STANDARD
Short travel micro switch action in ergonomic and highly durable designed body.
OFFER 9.95, T237H

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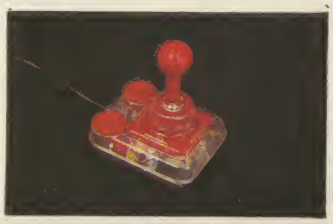
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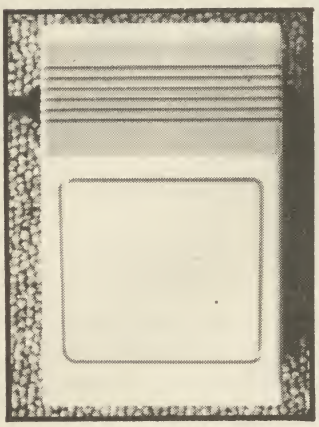


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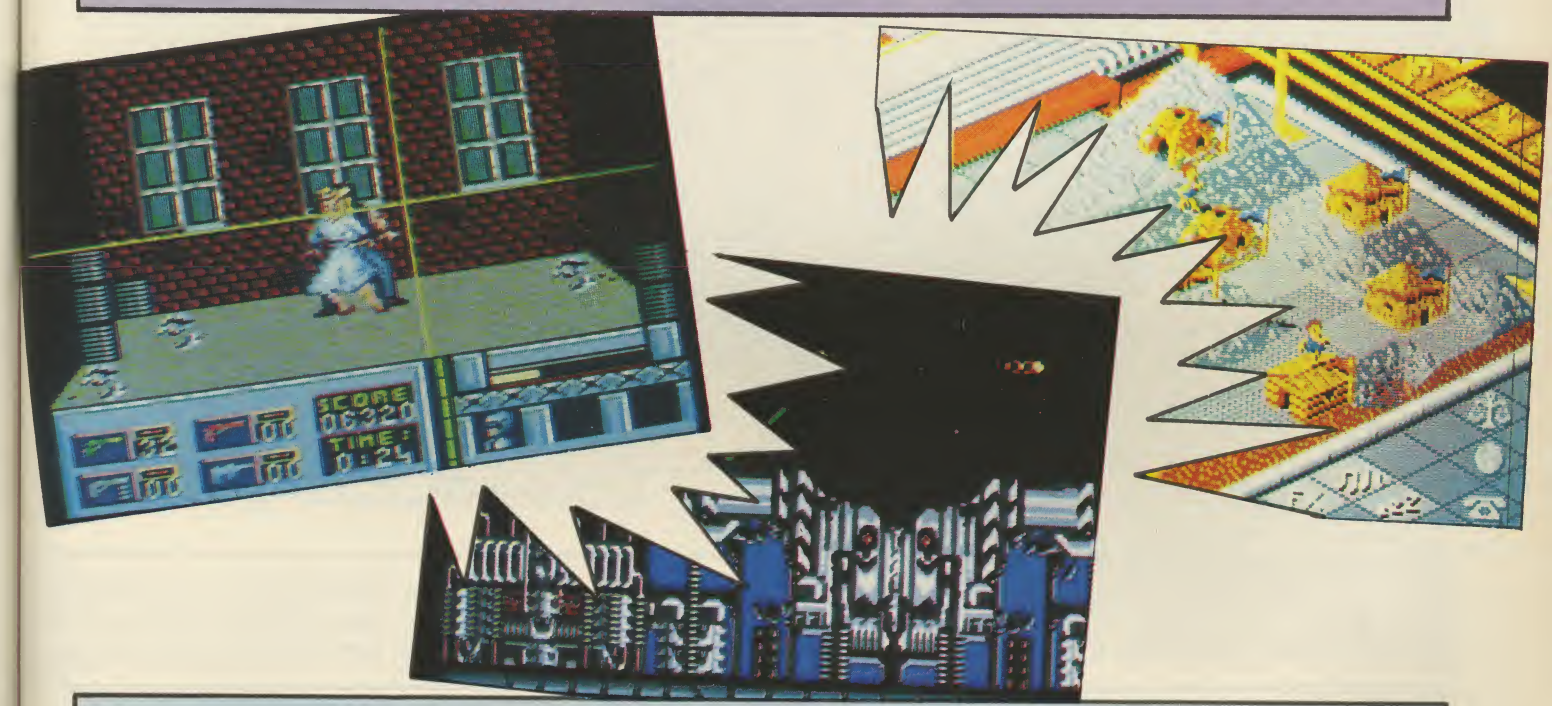
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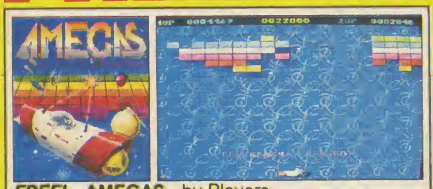
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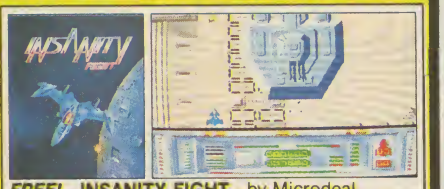
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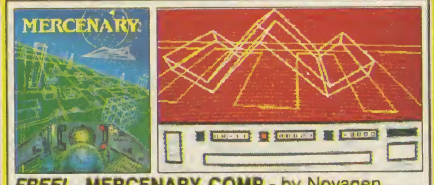
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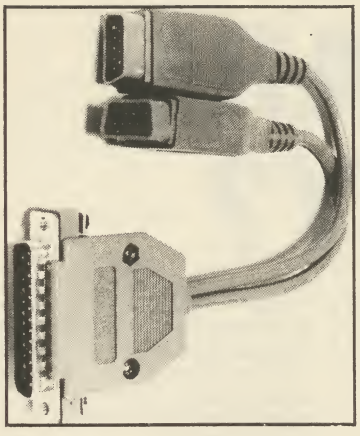
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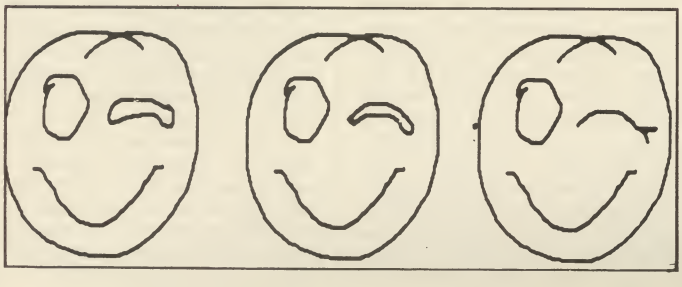
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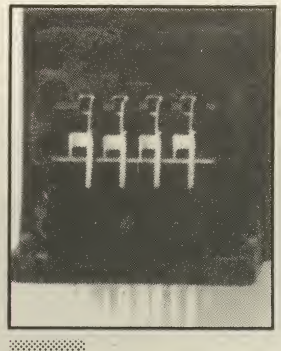
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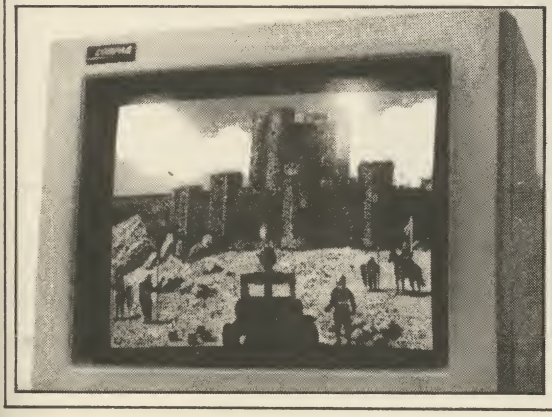
BACK BYTES

We were happy too when we discovered *Zoetrope* – and it winked at us! Read Toolbox (page 102) for the first news on Antic Software's incredible Amiga animation system, complete with winking demo, and watch TGM for a full review.





CD-ROM – is the future perfect? Barnaby Page has his doubts about software's silver platter, which some maintain will provide huge adventures with stunning sound and screens. See Controversy, page 112.



CONTENTS

- 94 COMMS: THE PLAIN FACTS
- 96 REPAIR SERVICES
- 99 PROGRAMMING: NEW BASICS AND DEVPAC
- 102 TOOLBOX
- 104 INFORMATION DESK
- 107 CLASSIFIEDS
- 110 READERPAGE
- 112 CONTROVERSY
- 113 COMPETITION WINNERS
- 114 ENDPIECE

WHAT THE **** ARE COMMS ANYWAY?

Ever wanted to reach out and touch an ST on the other side of the world? You can do it – just for the price of a few cables, a black box, some disks and British Telecom's pound of flesh.

Exclusively for TGM, comms wizard Zog takes the mystery out of modems and explains what they do and how.

When I was a lad, computers were room-sized brutes with flashing lights, enormous tape drives and power supplies that would have done justice to a housing estate. Programmers, angrily demanding their rights to work in quiet offices, smoke cigarettes and spill coffee in the machinery, obviously had to be placed somewhere else. Thus were computer communications born.

And some unsung hero's swift piece of work with a soldering iron led to a standard for transmitting signals along cables. At one end sat the computer, and at the other was a keyboard and a screen. What went on at the two ends didn't matter to the communications equipment – but when one end wanted to talk to the other, it used a special circuit to produce a standardised signal.

The signal was then passed down the cable and decoded again at the other end by another bit of circuitry. This standard now goes under the name of RS-232 (or 232 to close friends).

Microcomputers are now with us, and many still have a 'terminal' mode, in which they become a 'dumb terminal'. No real use is made of the processor inside, except to pass data to and from a port at the back of the computer. This port is just a socket into which you plug a cable capable of carrying those RS-232 signals to the computer at the other end.

To become a dumb terminal, your micro has to be running some sort of communications (comms) program. But the passing of bytes – from the keyboard to the port, from the port to the screen – is only the core of a decent comms package.

A key (or combination of keys) is reserved for use by the program; anything else typed on the keyboard is passed to the port to be transmitted. However, when a special 'hot key' is pressed, the program recognises it and takes some sort of action instead of transmitting the character.

This action usually consists of producing a pop-up menu, from which actions can be selected. Now the keyboard is used to make menu selections – nothing you press is passed to the port. A second hot key, such as the ESCAPE key, must be pressed to hide the menus again and put you back to sending things to the port – and thence to the far end of your cable.

So why type everything? You probably have a perfectly good disk drive or two just idly lazing around – set them to work too.

File and forget

Just create a file on disk with the commands you want to send to the port, and save it. Then, instead of hitting the hot key, just get the comms program (if it's clever enough) to send the disk file to the port instead. This rather silly-sounding process really comes into its own when you need to send the same stuff to the remote computer again and again. Get it right once, and (barring disk failures) you'll never need to type it again.

'What wonderful news,' you cry, 'especially for log-in sequences and things!' Yes, but also for data files themselves – you could save a word-processed letter, or a program, on disk and send it to a remote computer.

And, of course, that big machine at the other end needn't be a big computer, since as far as *your* computer knows it's only talking to a particularly chatty bit of cable. The other end could equally well be another home computer, a dumb terminal, a printer or R2-D2.

Who cares? Luckily, that unsung RS hero (Ron Smith? Robert Saatchi? Rupert Surbiton?) *did* care, and thought long and hard about little streams of electrical signals running up and down cables, and what happened to them at the ends.

'Well,' he must have reasoned, 'if the far end sends your end a load of data, say from a big file, at the highest speed it can manage, and your end is old, or tired, or busy in some way, then what happens?'

Reginald Spiffington (?) then added a few extra wires to the three he already had for his 232nd attempt at getting the system to work, and used them to send control signals between the ends.

This was not a simple task, because the two ends of a cable are not necessarily synchronous – that is, one end isn't continuously telling the other one, via loads of pulses, what to do to stay precisely in step.

No, Roderick Singlesbar was working with asynchronous equipment, a brain-twisting world where grown men would occasionally bite off their own legs rather than think too closely about data arriving at some port just when most inconvenient.

Trapping misteaks

Actually, we've ended up with a couple of methods by which RS-232 can control data flow, but most ports can handle both anyway. Some sort of signal tells end A that end B is 'almost full up, and kindly stop sending any more please'. Then, once B has got its act together and done something with all the data, a second signal tells A to 'stop hanging about and send some more of that data, what kept you?'.

Are you quite clear so far? Then we can throw modems in to muddy the picture again (see box). You, as a user, almost certainly require one to connect to other computers, since there probably isn't another computer within a few yards of you. (If there is, then

Modems: a sound idea

Modems convert data to a series of tones, and vice versa. The tones are audible frequencies which can easily be sent over the ordinary telephone network, but you obviously need a second modem at the other end to decode the signals back again.

To us humans, modems sound like a sort of warbling whistle when working. This whistling is what you'd hear if you ever dialled into a computer system on the phone – a modem attached to the computer is sending a tone saying 'cooo-eeee' and hoping to hear an answering whistle from the modem at your end. (A fax machine makes a similar shriek for similar reasons.)

Once it detects this 'carrier signal', the modem feels perfectly at liberty to start sending data over the phone network.

Transmission speed is important too. Because of the somewhat variable quality of phone lines, and the bandwidth that they can carry, modems just ain't as fast as ordinary bits of cable for transmitting data. Luckily, cable is no problem, so each computer converses in 232-speak to its own modem, and then the modems converse amongst themselves in FSK-speak (or 'frequency shift keying', for name-droppers).

As long as both modems speak at a speed that the other one is expecting, everything is hunky-dory.

Well, almost everything. There are a couple of odd things like parity and stop bits, but they can wait for now . . .

Getting smarter . . .

Modern modems are much cleverer beasts than older models. The revolution started when American company Hayes began manufacturing what they called 'SmartModems', which had their own processors inside. This meant you could send certain recognised codes to the modem from your computer and do clever things.

You could hand it a phone number and tell it to dial (autodial), tell it to answer the phone if it rings (autoanswer) or alter any of the other settings of the modem such as parity.

Other companies followed suit, but because of the success of Hayes, their product became virtually an industry standard – so most firms stuck to the Hayes protocol.

CONTACTS

Humans

Public Domain SIG (Special Interest Group): ☎ (08926) 63298
Kermit (Alan Philips, University of Lancaster): ☎ (0524) 65201

Modem numbers

Prestel (from London): 623-8855
Gods (BBs and MUGs) (01) 994-9119
Telecom Gold (demo) (01) 583-3000

Try 300/300 baud or transmit at 75 and receive at 1200 (1200/75). Also 8 data bits, no parity and one stop bit should work on most systems.

you need a special cable called a 'null modem' – just to confuse you totally . . .)

You also have to configure the modem to work at the right speed, parity, etc for what you have in mind. This was once all done with switches, either on or in the modem, but now you can probably set it all from your comms package.

Because a lot of people have thought about how to detect and correct errors in transmission, particularly when sending important data down a line with lots of interference, good comms packages will probably also support one or more methods of error-correction ('protocols'). Again, both ends of the link have to have the same protocol for the system to work.

The use of a good system adds only a small overhead in transmission time when sending over a clean line, and virtually guarantees that data is error-free. One such protocol is called Kermit, and it's a public-domain package – in other words, versions of it, from tiny micros up to giant mainframes, are readily available and cost only a few pounds (to pay for the tape or disk). Users can also write new versions of Kermit, either for fun or for new computers as they appear.

Though several expensive comms packages exist, a public-domain group will probably have something such as *Procomm* or *Intercomm* available for your machine. These packages have Kermit as a protocol, along with several others. They also have clever extras such as phone numbers (for the modem to autodial), log files, function keys, automatic modem setup, etc, etc.

So there you have it. To talk to someone or something out there, you need a modem, a comms package and some odd bits of cable. The modem may be internal, in which case the computer will just plug into the phone socket – but more probably it will be a separate little box. Ideally you should have software which supports both scrolling and graphic protocols.

Finally, here's a thought. What happens if you get a computer which is linked via modems to dozens of phone lines, and then get loads of people to call it at once? If this central computer runs a special program as well, it can even provide players with a sort of universe in which they can interact, talking to each other and other such stuff. This is the world of the multiuser game or MUG. More about MUGs, bulletin boards, networks, and modem hardware will be covered in TGM over the next two or three issues. And to discover the future of long-distance games-playing, look back to TGM**015** . . .

■ *Zog is the pseudonym (obviously) of a London-based technical kinda guy who writes about comms in several magazines. He'll be our Back Bytes comms expert as this series continues.*

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GUIDE TO INDEPENDENT REPAIR SERVICES

No matter how much you care for a computer, eventually something goes wrong. And you can bet your life it'll happen after the guarantee has expired, so you can forget about sending it back to the manufacturers. In most cases, they won't want to know.

- Before packing your computer off to a repair firm, check to see if your local computer dealer can recommend a local repair outfit.
- Phone the company you choose and try to get a rough guide of the cost of the repair, how long it will take – and whether they'll give a warranty to do it again for free if the repair doesn't work.
- Make sure that the quoted price includes parts, labour, VAT, and return postage.
- When sending your computer by post, pack it carefully – preferably in the original box.
- Always include a letter with your name, address, and telephone number and the effects of the fault.
- Send the whole package by recorded delivery – just 24p on top of the stamp cost – and pay the extra cash for an advice-of-delivery slip (25p if you ask for it when you post the package, 65p if you leave it till later). That way you know it's got there.

COMPANY **BCL (Best Computers Ltd).**
ADDRESS *Galaxy Audio Visual, first floor, 230 Tottenham Court Road, London W1A 3AP* ☎ (01) 631-0139 or 580-6640.
COMPUTERS REPAIRED All 8-bit and 16-bit models including PC-compatibles.
PERIPHERALS REPAIRED All.
PRICES A typical small repair would cost £15-£20.
WARRANTY Six months.
ADDITIONAL INFORMATION Free estimates. Galaxy Audio Visual also sell micros.

COMPANY **Cambridge Micro Surgery.**
ADDRESS *Unit 4, 377B Cherry Hinton Road, Cambridge CB1 4DH* ☎ *(0223) 410234.*
COMPUTERS REPAIRED Spectrum, Commodore, BBC, Amstrad, PC-compatibles.
PERIPHERALS REPAIRED Printers, monitors, disk drives etc.
PRICES Cheapest is 48K Spectrum at £18.95 plus cost of parts; others from £23.50.
WARRANTY Three months.
ADDITIONAL INFORMATION Will provide annual maintenance for business micros, on a contract basis.

COMPANY **Ladbroke Computing International.**
ADDRESS *33 Ormskirk Road, Preston, Lancashire PR1 2QP* ☎ (0772) 21474 or 27236.
COMPUTERS REPAIRED Mainly Atari.
PERIPHERALS REPAIRED Printers and disk drives.
PRICES According to machine – for example ST £34.50, XL/130 XE £23 (these prices include VAT).
WARRANTY Phone for information.

COMPANY **MP Electronics.**
ADDRESS *Wendling, Dereham, Norfolk NR19 2LZ G*☎ (0362) 87327.
COMPUTERS REPAIRED Spectrum, C64, BBC B, PC-compatibles – in fact all major makes *except* ST and Amiga.
PERIPHERALS REPAIRED Printers, plotters, monitors, disk drives etc.
PRICES All-inclusive prices for most machines – 48K Spectrum £15, 128K Spectrum, BBC B and C64 £27.50, PCs from £20-£100+. These rates cover all faults *except* those caused by other people's botched repairs!
WARRANTY Phone for information.
ADDITIONAL INFORMATION Free estimates. £20 repair and overhaul service for 48K Spectrums – MP Electronics replace sockets, keyboard membrane etc and will repair any faults that develop within six months of overhaul.

COMPANY **PM Engineering.**
ADDRESS *Unit 8, New Road, St Ives, Cambridgeshire PE17 4BG* ☎ (0480) 61394.
COMPUTERS REPAIRED All home computers.
PERIPHERALS REPAIRED Printers, monitors and disk drives.
PRICES Phone. There's a set repair price for each computer, regardless of the fault and including all parts and labour.
WARRANTY Three months.

COMPANY **Swindon ITEC.**
ADDRESS *6 Oppenheimer Centre, Greenbridge Road, Swindon SN3 3JD* ☎ (0793) 611808.
COMPUTERS REPAIRED Spectrum, Commodore 64/128, BBC B and Master series, CPC.
PERIPHERALS REPAIRED 5.25-inch disk drives, monitors, cassette-deck alignment.
PRICES Spectrum from £18, others from £25 (but small repairs may be cheaper).
WARRANTY Three months.
ADDITIONAL INFORMATION Most repairs should be done within seven working days.

COMPANY **Telegames.**
ADDRESS *Kilby Bridge, Wigston, Leicestershire LE8 1TE* ☎ (0533) 880445 or 813606.
CONSOLES REPAIRED Atari VCS2600, Colecovision, Intellivision, Sega.
PERIPHERALS REPAIRED Phone to ask.
PRICES VCS2600 £17.95, Colecovision £14.95, Intellivision £19.95, Sega £14.95.
WARRANTY 90 days.
ADDITIONAL INFORMATION Telegames promise to return the console to you just *three days* after they've received it. They're also the official UK repair centre for Sega and Colecovision.

COMPANY **Verran Micro-Maintenance.**
ADDRESS *Albany Park, Frimley Road, Camberley, Surrey GU15 2PL* ☎ (0276) 66266.
COMPUTERS REPAIRED Spectrum, Amstrad, Commodore.
PERIPHERALS REPAIRED Printers, monitors.
PRICES Range from £19.95 for Spectrum to £95 for Amstrad PC1512.
ADDITIONAL INFORMATION Established six years. Approved by Amstrad.

COMPANY **VSE Technical Services.**
ADDRESS *Unit 6, 8 Nursery Road, London SW9 8BP* ☎ (01) 738-7707.
COMPUTERS REPAIRED All Spectrum, Amstrad, Atari and Commodore models.
PERIPHERALS REPAIRED Opus Discovery drive (partner Ian Vaudrey is official repairperson for the Sinclair Discovery Club).
PRICES Each model has a set price which covers all repairs except very major ones like keyboard or disk-drive replacement. Spectrums range from £12.90 to £17.90; C64 is £19.90, C128 £24.90; CPCs range from £21.90 to £24.90; all PCWs are £31.90.
Parts, labour, VAT and return postage within the UK are all included.
WARRANTY Four months.

COMPANY **Wight Computing Home Micros.**
ADDRESS *122 High Street, Ryde, Isle of Wight PO33 2SU* ☎ (0983) 68978.
COMPUTERS REPAIRED Most.
PERIPHERALS REPAIRED Printers and monitors, but check first that the service is available for older models.
PRICES According to the problem.
WARRANTY 90 days.
ADDITIONAL INFORMATION Wight Computing will also check, clean etc computers which are not obviously faulty.

COMPANY **Wynter Electronics.**
ADDRESS *Unit 30F, Atlas Village, Oxgate Lane, Staples Corner, London NW2 7HU* ☎ (01) 452-5660.
COMPUTERS REPAIRED Spectrum, Commodore, BBC, Atari, PC-compatibles.
PERIPHERALS REPAIRED Phone for details.
PRICES £18 upward, depending on machine.
WARRANTY Three months.
ADDITIONAL INFORMATION Repair done in one week.

Attention repair firms: If you would like a mention in the Back Bytes Repair page, please send the relevant details to Back Bytes, TGM, *PO Box 10, Ludlow, Shropshire SY8 1DB*, including a phone number and the manager's name (for our files).

Alas, poor Oric, I knew it well . . .

Owners of now-obscure computers (calm down, we're not saying they're *bad*) might find help at **A1 Computer Services**. For the West Midlands-based firm handles C16s (repair £25), Vic20s (£25) and Plus 4s (£32.50) as well as more common machines – and this has brought them business from all over Europe.

A1 will repair virtually any computer, says boss Joe Killman, including Spectrums (older models £25, +2 £29.50, +3 £29.50 except for disk-drive faults), C64s (£27.50), C128s (£42.50), BBCs (around £29.50) and 16-bits (phone or write for information).

Printer repairs start at £29.50, while a full disk-drive service seems well worth £25.

A1 Computer Services: *Unit 9, Paddock Mount Offices, Dawley, Telford, Shropshire TF4 3PR* ☎ (0952) 502737.

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Toolbox

Products and news to make life bearable

Eye hait teecher

Hey kids, school is going to be more fun! Well it is if you buy Database Software's *Fun School 2*. Three packages aimed at under-sixes, six-to-eight-year-olds and over-eights test skills ranging from teddy-counting to binary arithmetic; typically, at TGM we couldn't get the over-eights' software to load.

Fun School 2 is available for BBC, Electron, CPC, Spectrum and C64 at £9.95 on cassette and £12.95 on disk. ST, Amiga and PC versions are planned.

Database Software: *Europa House, Adlington Park, Adlington, Macclesfield SK10 4NP* ☎ (0625) 878888.

The well-dressed keyboard

If you're like certain TGM staff – always spilling Coke over your keyboard and getting crisps stuck between the keys – Kador have the answer to your problems, because their Seal 'n Type spill cover can save your keyboard from ruin.

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It's available for just about every home computer imaginable; prices start from £6.50.

Kador: *Unit 4, Pontcynon Industrial Estate, Abercynon, Mid Glamorgan CF45 4EP* ☎ (0443) 740281.

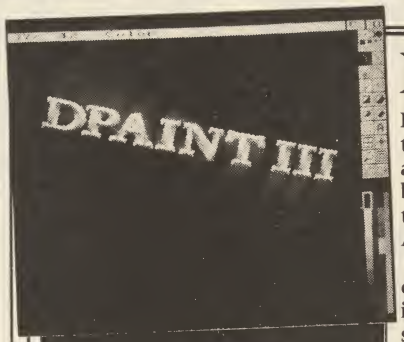
Bigger, better ST sprites

The ST's built-in sprite capabilities aren't really viable for programming your own games – because sprites are limited to 16x 16 pixels and two colours. Now Soft Bits's £24.95 *Sprite Master* increases the maximum size to 144x84 pixels in 16 colours.

The package includes a full set of sprite drawing and editing tools designed to make sprite-creation simple and fast; alternatively sprites can be imported from either *Degas Elite*, *Neochrome* or *Advanced Art Studio*.

And *Sprite Master* scores points over other sprite-designers with its comprehensive, advice-packed manual. Sprite Master, available now, is fully compatible with GFA BASIC, Fast BASIC, STOS BASIC and HiSoft/Power BASIC.

Soft Bits Software: *5 Langley Street, London WC2H 9JA* ☎ (01) 836-2533.



Deluxe Paint III arrives

Electronic Arts have cut Deluxe Paint II to £49.99 – for they're trying to run down stocks before Deluxe Paint III arrives. And Dan Silva's latest art program features all the best tools of its predecessors, along with several new features which look set to make it THE art utility for the Amiga.

Extra-halfbrite enables the user to paint with up to 64 colours onscreen, while improved brush commands include options to wrap a user-defined brush into any shape.

And extensive animation commands will also set Deluxe Paint III apart from other art utilities – Multiframed animated brushes and perspective animation are just two of the options.

Deluxe Paint III will be released in early April priced £79.99; look out for a full review in next month's TGM.

Animation on the Amiga

The Official Amstrad User Club has launched training facilities for Amstrad users across the country. The Club offer a number of software-training courses taught over half and full days.

Contact the club, outline your requirements, and they'll sort out the details. There are 18 centres all over the country, so nobody should have to travel far.

The Official Amstrad User Club: *PO Box 10, Enterprise House, Roper Street, Pallion Industrial Estate, Sunderland SR4 6SN* ☎ (091) 510-8787.

Amstrad training

Antic's ST animation program *Cyber Paint* has finally been converted to the Amiga – and changed its name to *Zoetrope*. The £99.95 program itself has been radically altered, too, and you'll need 1Mb to run it.

The program includes an art utility, with drawing tools to design your own graphics before constructing animation sequences. These include airbrush, geometric shapes and various paste menu also provides options to move, rotate or stretch any graphic.

Graphics can then be linked together to form an animation sequence. These are controlled by the playback bar, which works just like a VCR: sequences can be played frame by frame, either backwards or forwards.

And Zoetrope can automatically create animation effects: all you have to do is draw key frames and the computer fills in the rest for you. Look out for a full review in next month's TGM.

Zoetrope is available from **ISM**: *Grove House, Ventnor Road, Apse Heath, Isle of Wight PO36 0JT* ☎ (0983) 86474.

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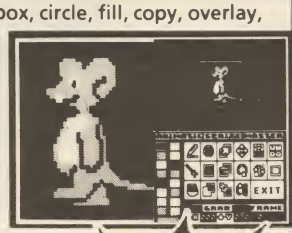
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pages = Amiga BASICs + Amiga Devpac + starting C
if interest = programming
        do while not end.of.page
            read (pages)
        end do
end if
```

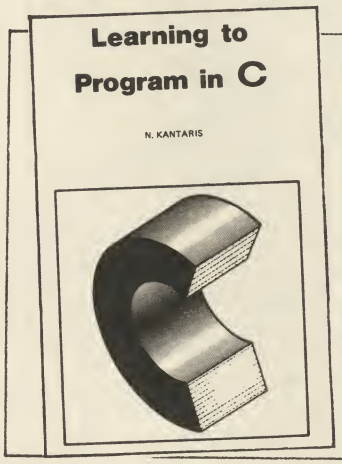
Battle of BASICs: GFA vs HiSoft

BASIC is a fairly standardised language, with only minor differences between versions of the same era, so most people can pick it up when transferring to a new system. For instance, if you can program in Sinclair BASIC on a Spectrum, you can get to grips quite soon with C64 BASIC.

Not so with Microdeal's *GFA BASIC version 3.0*; this is more like a cross between C and PASCAL, with a few bits of BASIC here and there. But this could be an advantage, as most professional *business* programmers use C, PASCAL or BASIC; here you have a hybrid.

And you can even include C or assembly-language subroutines in GFA BASIC programs, making it suitable for a development team.

Generally, everything is made easy, from reading the mouse movements to getting a nice letter from your bank manager (well, maybe that's a bit unrealistic, but why be a sadist all your short life?)



C may be a trendy language, yet its flexibility has often led to different programmers writing in wildly different styles – and novices not knowing where to start.

But now publishers Bernard Babani have produced a cheap beginner's guide. Learning To Program In C (£4.95, 128 pages) takes you through from the basics of arithmetic to variable-typing, sophisticated conditional functions and program editing. Sample programs are heavily used, and there are also puzzles to solve – with solutions.

Learning To Program In C: Bernard Babani (Publishing), The Grampians, Shepherd's Bush Road, London W6 7NF ☎ (01) 603-2581 or 603-7296. The book's ISBN is 0 85934 203 4.

Amiga Devpac gets it all together

What do you want for 60 quid? How about pretty little blue-and-white folder, which when opened reveals two diskettes, a manual, and a huge, absolutely enormous book of the 68000 instruction set (for 'huge' read '6-inch by 5-inch')?

This is HiSoft's *Devpac version 2*, and at £59.95 it's a very fine package indeed, handling all the chores of Amiga assembly-language development. It's already had a brilliant career on the ST.

On the first of the two disks is the editor (*Genam2*), which uses the whole screen; the assembler (*Genim2*); and the debugger/disassembler (*Monam2*). There are also example programs, one of which contains deliberate mistakes.

On the second disk, there's a public-domain linker (*BLINK*) which links object files to create one output file. There are also other Workbench utilities.

But it's with *Genam2*, the full-screen editor (FSE), that you actually get down and boogie with your keyboard. The FSE is really just a 'degraded' word processor for writing assembly language instead of letters to grandma, but extra pizzazz comes with the assembler and debugger – both are also memory-resident, so the two (or three, depending on experience) stages of practical development are made a whole lot easier.

The FSE allows you to load or write a source-code file and assemble it to disk or directly to memory (where a 1Mb RAM comes in handy!). But it advisable to save the source code before running a program, just in case a guru wanders past.

The editor has some options, similar to word-processing features, such as search-and-replace, go to line number, go to top, etc; you can even insert more files anywhere, useful for adding music routines or oft-used chunks of code.

Devpac's file-requester has been improved on version 2 – instead of having to know what the filename is, it shows you the contents of the current directory, and you select a file using the mouse.

You can also edit *Devpac*'s startup text, if you must.

Assembling

When you think you've finished your super-duper virus or whatever you're writing, you have to assemble it. The ASSEMBLE option brings up a window, containing more options like type of object code (executable or linkable), listings, destinations for object code (none, disk, or memory), etc.

If the assembler spews up some errors (don't worry, it happens to the best programmers as well!), use another little option I like – JUMP TO ERROR, which will search through your program to the line at which the error occurred. When you correct it, select this option again, and it searches for the next error. It also gives a short description of the problem.

Once you've assembled the program with no errors, you can run it. If you assembled to disk, you now have to quit *Genam2* – but if you assembled to memory, use the option RUN PROGRAM. This returns you to the editor when it's finished.

Bug off

Monam2, the disassembler and debugger, finds bugs very easily. The screen has three windows: one displays the registers including the program counter etc, one shows the actual memory of the Amiga as the code (with mnemonics etc), starting at whatever you select Window Start Address, and one shows the memory as hex and text.

You can edit the information in any of the windows by pressing CTRL E.

To run the program from the current program counter, press CTRL R – or, if you want to debug the program, use single-step trace mode. This runs the program one instruction at a time, so you can see how it affects the registers etc.

Improvements

Devpac version 2.2 offers quite a few major improvements over the first version:

- The editor can run in 60-column or 80-column modes, depending on your Workbench preferences file.
- Workspace can be changed from within the editor.
- The assembler is a lot faster – the manual says 'the absolute maximum speed more than doubled to 75,000 lines per minute, though for real programs, 35,000 is the norm'.
- Finally, the little blue pocket guide for 68000 is extremely useful, with detailed descriptions about the instruction set, different syntaxes for each instruction, and the registers/flags affected by them.

Jason Sheldon

Devpac version 2 is available from HiSoft for £59.95; you'll find their address at the bottom of this month's BASIC reviews.

We reckon that to make the most of it you'll need an external disk drive, 1Mb RAM, and as many Amiga/68000 books as you can afford!

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The potential of BASIC is almost endless, and the limits seem to be a lot further away with GFA BASIC.

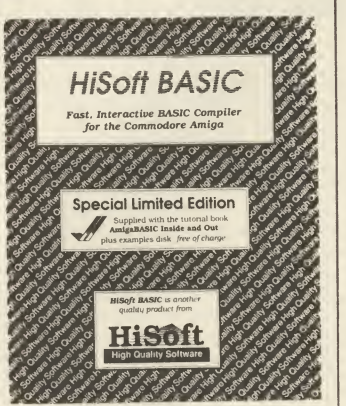
One helpful feature is NEW-NAMES, an option which, when switched on, lets you know whenever you use a new variable name in a line of code. This helps trap typing mistakes which can otherwise be near-impossible to find.

However, there are a couple of major problems: perhaps the biggest is incompatibility with AmigaBASIC, which essentially means you've got to choose one BASIC dialect or the other. You can't use those AmigaBASIC routines in GFA BASIC.

And there's still no compiler available for GFA BASIC, so computation-intensive programs will be slow. (The package does include a 'run-only' version of GFA BASIC, which you can copy for anyone without fear of being a pirate; they can then run your GFA BASIC programs, but not write their own.)

Perhaps if you were brilliant enough you could write a compiler with one hand and translate your AmigaBASIC code into GFA BASIC with the other; but for ordinary (ie nonprofessional) users, we reckon GFA BASIC is drawn back too far by its drawbacks. A shame, that, because in itself it's a very powerful language.

Incidentally, the disk provides some demo programs, showing what can be done with GFA BASIC, and they're very fast – but we had to correct mistakes first!



The instructions say 'Load GFA BASIC from Workbench', so obviously the Workbench disk has to go in drive 0. We put the program disk in DF1:, loaded the sample demo, ran it, and lots of OBJECT NOT FOUND messages popped up.

The problem was that the demo was looking for other files on drive DF0:, which of course contained the Workbench disk. After changing these to DF1:, it worked fine – ultrasonically fast.

Is HiSoft better?

HiSoft's BASIC has a compiler, and it is AmigaBASIC-compatible. Those are the first, and most important, points to make in our comparison; otherwise it's a structured, powerful BASIC, which (like GFA BASIC) became well-known on the ST. There, it was used to write software such as the *Ballzone* game and *Replay* music package.

Now, more than three years after work started on the ST version, this classic 68000 BASIC arrives on the Amiga. We found it easy to use, despite the oft-made criticism that (unlike GFA BASIC) it has no syntax-checking: in other words, it doesn't even begin to tell you what mistake you've made!

That apart, HiSoft BASIC's enormous array of commands knows few limits, and – a blessing – there are no limits (other than the hardware's!) on the size of arrays and string variables.

The manual claims it performs the Sieve benchmark 50 times faster than AmigaBASIC, and – though we'll admit we didn't run a test! – it certainly seemed that speedy.

It's an expensive package, but it's definitely an investment worth making if you want something with a bit more bite than AmigaBASIC. It can also be used to write code for 68010, 68020 and 68030 machines – fancy developing a game for Steve Jobs's new NeXT computer?

Manual satisfaction

GFA BASIC's manual is quite large, and gives extremely detailed descriptions of the commands (marred by a few errors of English, which probably arose in the translation from German). The 12 chapters contain one command/function (sorry, function) on each page, and a small example of how and where it can be used. Unfortunately, some of the examples aren't as detailed as the description . . .

An appendix includes keyboard scan codes, an ASCII table, fill patterns for drawing commands, AmigaDOS error messages, and much much more.

HiSoft provide a comprehensive, well-written manual for their BASIC, which helps experienced programmers pick up the dialect's peculiarities quite quickly. But we wonder how useful the manual would be as an *introduction* to the jollities of BASIC programming; it seems that the authors have made a lot of assumptions about the reader.

GFA BASIC version 3.0 costs £64.95 from Microdeal, *PO Box 68, St Austell, Cornwall PL25 4YB* ☎ (0726) 68020.

HiSoft BASIC costs £99.95 from HiSoft, *The Old School, Greenfield, Bedford MK45 5DE* ☎ (0525) 718181. There's a reduced price of £79.95 for the first 1,000 copies sold, so hurry.

Both packages should also be easily available from any Amiga mail-order specialist, or through good software shops.

■ *GFA BASIC was reviewed by Jason Sheldon, a Wolverhampton-based programmer currently working on electronic publishing systems. HiSoft BASIC was reviewed by Mike Dunn, an aspirant IBM mainframe programmer . . . good luck with the interview!*

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INFORMATION DESK

Amiga mysteries dominate again as the Back Bytes gurus give you the meaning of micro life . . . but first, full facts on Microlink

Linking up

I am interested in Microlink. How do I go about joining?
David Linford, Horley

Microlink boasts Britain's largest bulletin board. It is essentially an electronic mail (email) service – users can send telexes, telemessages and faxes. Microlink also offers access to a number of business databases, and a multiuser game (*Shades*).

It costs £15 to join; thereafter, users are billed monthly for the facilities they've used, with a £5 minimum monthly charge.

But before you can start using Microlink you'll need a modem, software and a modem cable. Microlink provide all these for £179 in a special deal for PC-compatibles, PCWs, ST and BBC. And if you have a different computer, they'll send you a list of the software you require.

For further information and application forms contact Microlink, *Europa House, Adlington Park, London Road, Adlington, Cheshire SK10 5NP* ☎ (0625) 878888. You may find Zog's feature on comms in this month's Back Bytes interesting, too . . .

What you Sega is what you get

How many different companies design and program video games for the Sega? Is it possible to tell which company programmed the game just by looking at the box it is concealed in? Also, are all Sega games designed in Japan?
Neil Smith, Penwortham

All Sega games go through Sega itself, but they come from many different companies – and when it's a coin-op conversion, you should find the name of the original company (eg Namco) on the box. As far as we know, all Sega games come through Japan; though its console is sold worldwide, the company is very centralised.

ST backup

A friend of mine owns a Spectrum with a Multiface box which allows him to make back-up copies of all his software. Is there a similar add on available for the ST?
Tony Santana, London

Romantic Robot, producers of the Spectrum Multiface, have recently released Multiface ST (£49.95 plus £1 postage and packing). Just like the Spectrum and CPC models, Multiface ST can copy individual screens, programs or entire disks.

It comes in the form of a little black box which you plug into the cartridge port of your ST – the box contains a 64K ROM card, so no ST memory is used.

When the Multiface's 'magic button' is pressed, any program currently running is interrupted and can be copied. When you reload the copy, it will start at the point at which it was saved.

Romantic Robot: *54 Deanscroft Ave, London NW9 8EN* ☎ (01) 200-8870 (credit-card orders can be phoned in 24 hours a day).

It's Seikosher!

I need a printer for my C64 and the only one I can afford is the Seikosha SL808I. What kind of interface would I need to link it to my computer, and where could I get one from?
A Goltz, Slough

Bad news for C64 owners is that the machine has a nonstandard serial port, which presents interfacing problems with most printers – they won't just plug in and go.

But the good news for you is that the Seikosha SL808I is fully compatible with the C64. There's no need for any special interface – just plug it into the serial port and it'll work. The Seikosha SL808I is available from Postronix for £164, including postage and packing.

Postronix: *Nene Enterprise Centre, Freehold Street, Northampton NN2 6EW* ☎ (0604) 791771.

Amiga drumming

Could you please tell me if there are any drum-machine programs available for the Amiga?
Graham Butler, Fort William

The excellent *Adrum* from Bullfrog Productions – also programmers of this month's cover game *Populous*! – was reviewed back in TGM**005**. The program can hold up to 26 samples at one go and play back four at a time – one for each of the Amiga's sound channels. Fully MIDI-compatible, *Adrum* is currently on special offer at £35.95.

Bullfrog Productions: *3 Bridge Street, Guildford, Surrey GU1 4RY* ☎ (0483) 579399.

TV or not TV?

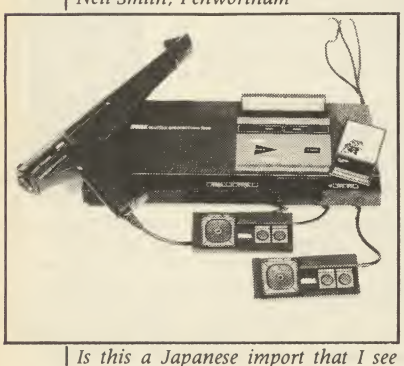
I am seriously considering buying an Amiga A500. However, I am not sure whether I should buy a colour monitor or not. What does the screen display appear like on a standard TV? Is a monitor that much better?
Rod Blaine, Edinburgh

Most Amigas are now sold with a TV modulator, and the quality of the picture is largely dependent on the standard of the TV used. Monitors give better definition and many include stereo sound output but, in general, the difference between the two is unlikely to impair your enjoyment of a game.

Commodore's own monitor for the Amiga and C64/128 is available from Postronix for £264 including post and packing. The address is in the question above.

Shocked by software? Appalled by add-ons? Dismayed by disks? Frazzled by fractals? Washed out by wait states? Just send all your computing questions, micro or macro, to Information Desk, TGM, PO Box 10, Ludlow, Shropshire SY8 1DB.

We try to answer every inquiry, but sorry – no personal replies, even with an SAE. In fact, we're not sorry at all – we like to keep the stamps and send obscene material through the post.



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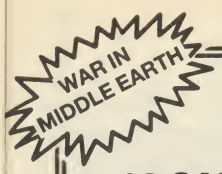
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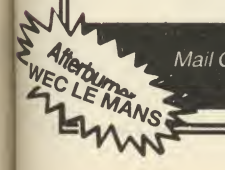
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Atari ST games for sale: Virus, Flight Simulator 2, Carrier Command, Police Quest, Winter Olympiad, Xenon, Stac, Thunder Blade, Hot Ball, Dungeon Master, Lancelot, Out Run, Power Drome and many more. Phone Andrew on (01) 650 1750.

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Atari 520ST, £800+ games including Pac-Mania, Batman, Operation Wolf. Also Sega with 3D games and gun, £300+ games. Sell Atari for £500, Sega for £280 or together for £700. Phone 01 472 9142 and ask for Jason.

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Atari ST 1040, mono monitor and dot matrix printer, plus £200 of non-games software, £450 ono. Tel: Rob 01 367 5684.

Commodore 64, plus sound synthesiser, keyboard, £150+ worth of software. The lot for £120. Phone 01 485 2847, after 6pm phone 01 455 1042.

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SWAPLINE

Amiga enthusiast wishes to swap software worldwide. Everyone welcome, 100% reply guaranteed, extensive collection owned. Send listings or disk to: Darren Wood, 18 Rimutaka Place, Titirangi, Auckland 7, New Zealand.

Amiga contacts wanted worldwide. All letters answered. Send your lists, disks and letters to: Simon Keyes, 4 Glanmor Crescent, Newport, Gwent NP9 8AX, or phone me at (0633) 280958 after 6pm. I've got the latest stuff!

CBM 64 or 128 swappers wanted. Only on disk, from all over the world, write or send disk. Ian Nicholls, A & B DIY Centre, Horam, Heathfield, East Sussex TN21 0ER, England.

Amiga owner All letters answered!

Atari ST/XE contacts wanted around the world to exchange hints & tips about all types of programmes. 100% reply. Write to: John Pournaras, Kapodistriou 59, Filothei 152 37, Athens, Greece. NOW!

Amiga contacts wanted from anywhere. Will answer all letters. Games to swap, tips to exchange. Send letters to Lloyd Williams, 21 Drovers Place, Peckham, London SE15 2RP, England.

Amiga contacts wanted around the world. All letters will be answered. Write to Paul, Willow End, 3 Woodland Road, Moss, Wrexham, Clwyd, North Wales, or phone (0978) 758700 after 6pm.

MSX (1 and 2) contacts wanted, very fast reply guaranteed. Write to: Yunis Malik, Nieuwe Binnenweg 250A, 3021 GP Rotterdam, Holland.

Amiga contacts wanted anywhere in the world. Also help in starting a user group. Written any software you want distributed by a P.D. Group? Details from: Arran, 8 Appleton Road, Hull HU5 4PR, England.

Amiga owner wants pen pals to swap games, tips etc. Write to Paul, 17 Farndale Ave, Whitmore Reans, Wolverhampton WV6 0TA, England.

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Amiga contacts wanted. Only the Elite need apply 2400 B.P.S. or postal, fast reply. Ring or write ASAP. Rory, 17 Rosedale Ave, Blackpool, Lancs. FY4 4HR. Tel: 0253 64178.

Amiga contacts wanted for this rad machine, swap games, demos, tips with anyone around world. 100% reply, interested? Then contact Cogger, 19 Capulet Road, Salisbury, Wilts. SP1 3JY NOW!!

Amiga contacts wanted worldwide, also have C64. All letters answered. Write to: John Petersen, Dyringparken 22, DK-2660 Brandby Strand, Denmark.

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READERPAGE

"The leisure computer industry is set to became the illegitimate child of the music industry"

Pessimistic Andrew Forster argues that we're all being taken for a ride by an industry still in its infancy

THIS BASTARD BREED

Dear Games Machine
In the past the computer industry, more specifically on the games side, has been compared to the music industry. The more I look into this observation, the more it seems to be correct. Some people may consider this a good thing but looking at the current state of pop music I worry what may become of the software industry. I hope my observations are wrong but it looks like the leisure computer industry is set to became the illegitimate child of the music industry.

There are many factors in the industry which mirror the music industry. Take the old tiresome, infantile argument of 'my computer is better than yours'. Fans of different music styles such as Heavy Metal, Indie, Dance etc, have been constantly bickering against each other for years. It's nothing new and it will continue as long as magazines print these futile letters and give air to these people. Likewise the old subject of hype in the software industry is much the same as the music industry. How often have we heard 'this band are the next big thing' or 'the new album is their best ever' or 'the latest tour is going to be something else, so get your tickets now' without ever having heard any new vinyl output when said quotes have been written.

Often we're left waiting weeks, sometimes months in anticipation, and the end result is often somewhat disappointing. How often have computer punters heard 'it takes the machine to its limits' or 'nothing has been seen like it before'. But it's not just the advertisers to blame but the magazines as well, building games up like a music mag builds up a particular band. I mean they aren't exactly going to give a cover story to a band and then slag them off something rotten inside. Likewise if a computer magazine is offered an exclusive preview or review as long as it is on the cover, then they are hardly likely to put said game down. The software company wouldn't allow it – or it certainly wouldn't give that magazine any more exclusives.

To take the analogy further, what about the smaller, independent companies? Many independent record labels are often distributed by the larger companies. Likewise many smaller software companies are merely extensions of the larger companies. Maybe once they were individuals but eventually the big companies moved in.

The music industry has always followed trends, and the software industry also seems to follow the trend of following trends. It takes one to discover a new style and then many more jump on the bandwagon to create a glut of similar products. In music the early seventies were dominated by glam, by the late seventies it had become the trend to be a disco band, for the early eighties the trand was new romantics. I could go one. The software industry has also followed trends. At one time it was platform games, then sporting simulations onto shoot em ups, driving simulations and the current trend of flight simulators.

We are always reminded of new technology. Remember when compact disc was new? Don't worry about the high price, once the market has established itself the prices will tumble. True the players have come down in price but the discs have stayed pretty much the same even though CD's are now outselling their vinyl counterparts. Remind you of something? That's right – the 16-bit market. Prices will come down once enough units have be sold. Yes the computers have come down in price, but the software hasn't changed one iota even though 16-bit software is now holding its own in the software charts.

If you have stayed with me the end you may well think I am being unduly pessimistic. However, I think I am being extremely realistic, and I just hope that the software industry doesn't become as stagnant and repetetive as the music industry. Think about it!
Andrew Forster, Warrington, WA1 3ET

Of course there are a lot of big fish making it difficult for the smaller ones to survive, but that's just part and parcel of a diverse marketplace. As ever, the way forward is not to unduly restrict that advertising or profile that the industry maintains but to keep everyone informed by objective, impartial editorial coverage – which is exactly what TGM does! As to the question of this objectivity well, we can only speak for ourselves. TGM had never used cover-mount cassettes or similar promotions because we've always believed (a) that readers shouldn't be hammered by high costs and (b) that TGM's coverage of software is sufficient reason to buy the magazine.

WHY QUALITY COUNTS

Dear Games Machine
After recently upgrading from a Spectrum, I have begun to see computing in a different light. And the reason for this change? No, I have not been stunned by the 'state of the art' computers themselves, but by the magazines dedicated to them.

For many years, I have regularly read a Spectrum magazine. Until the beginning of 1988, this catered for my needs exactly, with just about the right mix of news, reviews and programming. Over the past year, however, it has become obsessed with commercial gain. Reviewing sections have become a minimal concern, and are now replaced by a wealth of advertising and info on the latest craze toy. But, unfortunately, far worse than that is the new trend of supplying 'free' cassettes on the front of ever magazine.

As a devoted TGM reader, the difference in quality between the so-called 'up-market' 16-bit and the sometimes tacky 8-bit mags has become apparent. Understandably 8-bit mags tend to have a younger market, but this is no excuse for poor presentation at extortionate prices. There are of course, exceptions to this rule, and it can be dangerous to generalise.

In the multi-user market, each magazine is trying desperately to impress the potential buyer with glossy presentation. The problem with this, however, is that the older machines tend to get ignored. To my mind, TGM is the only magazine to treat *all* computers, including the consoles, fairly. Thank you and keep up the good work.
R J Sliwa, Bishop's Stortford, CM23 5HF.

HIGH PRICE OF MEGA GAMES

Dear Games Machine
I've got a bone to pick with you! When I get your magazine I hurriedly flick through looking for software for the Sega console. But to my amazement there are hardly any features for the Sega. Or for the Nintendo, or PC Engine. So come on, more features for the consoles!

This time Sega has gone over the top with the 16-bit console. The graphics might be brilliant, but the prices are way to high. Who's going to pay so much money just for one 16-bit game?

Keep the good work up and continue the magazine for years to come.
Marc Evans, Kent, TN24 8QL.

The question of price is a fair one, but surely it is ultimately a matter of value for money rather than some pre-specified price point. After all, we've all know 8-bit games which are boring after one or two plays, while some 16-bit or console games can keep you coming back for more time and time again (and vice-versa of course). How long is a piece of string?

TOO MUCH CHOICE

Dear Games Machine
I am becoming rapidly discontented with my Spectrum. What I need is some advice as to which machine I should change to.

Firstly, ever since I saw (and heard) how brilliant the C64 is, I was desperate for one. I now have a sufficient amount of money to purchase one, but as the 16-bit computers and consoles take over, I feel that I am not keeping up with technology. My second choice is the MGT SAM. I am doubtful about this 'Spectrum Saviour' (as reported in Back Bytes TGM014) the resolution is not adequate when compared to the C64's 320x200 (Mode 3 may have 512x192, but only in four colours, and I didn't understand Mode 2's intention). The speed of the 280B processor, 6MHz, although reasonably fast, seems to me to be too slow. The 64 colour palette is okay, but there can be only 16 colours on screen - the same as the ST.

The 16-bit Nintendo is too far off, while the 16-bit Sega Mega Drive's software support seems dubious. The Atari 1040ST's specification is a let down in the sound department, and also to some extent the resolution and colour.

The MSX2 (whose graphics you say are 'impossible in their use to distinguish from a normal TV. . . . we're talking real life') raised my hopes but they were soon dampened after Barnaby Page's opinion in TGM 014 'would it ever be released in the U.K?'. Also the £300 price tag seems too high for my budget. The Amiga is brilliant, but also way over my budget, but I may be able to buy one from Silica Shop on H.P terms - is this advisable?



Konix console: worth waiting for?

On the subject of consoles again, the PC Engine is stupendous, but the games are expensive at £30, and limited in number. And of course, the console itself isn't exactly cheap.

Then, there is the Konix Multi System with the peripherals that I have dreamed of, and the colour, 3-D blitter graphics, CD quality sound and the 16-bit 68000 processor. The only trouble is. . . . I cannot wait till late summer for it!

Please, please, help me -- I feel like a Sinclair C5 on Spaghetti Junction!
Shuhel Ali,Eccles M30 0FX.

Ho hum. The problem of which computer or console to buy basically revolves around two variables: application and price. First of all, look at what you really want your computer to do. Buzzer's and bell's are fine, but do you always need them? In the world of entertainments computing there will *always* be a machine with a more advanced specification than the one you currently own, and to buy a computer on the basis of specification without regard for application and, more importantly, software support would be crazy. As to the question of consoles yet to be released, first convince yourself that it's worth waiting. The waiting game can be self-defeating because technology is always advancing and there will always be another development on the horizon.

Gloomy old Andrew Forster gets £40 – count it £40 worth of software of his choice for his moaning diatribe on pop records – but the question is, can you do better? Send your letters to READERPAGE, TGM, *PO Box 10, Ludlow, Shropshire SY8 1DB.* Put the world to rights, keep in touch with your fellow man *and* maybe grab the £40 jackpot. You'd be a dipstick not to.

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My CD write or ROM?

CD-ROM means nothing unless we can make it useful, says Barnaby Page

It happened with floppies. It happened with punch cards, when some bright spark invented them to help count America's population in the late 19th century. It may be happening with digital audio tape (DAT), another 'technology of tomorrow' that seems to prove tomorrow never comes. No doubt it happened with stone tablets when the Lord gave unto Moses a new storage medium.

And now it's happening with CD-ROM – a method of keeping data on the compact discs you already use for music. (See my feature in TGM**008** or Mel Croucher's in the first issue for technical background.)

But despite all the warbling about an information revolution, and despite Mirrorsoft/Cinemaware's recent launch of the first CD-ROM game (*Defender Of The Crown* on PC; see Previews), it's becoming clear that behind the hype there are several problems which will keep CD-ROM away from your home computer for years to come.

Surprisingly, it must be said, price is *not* one of them. Mirrorsoft's product will retail for £49.95 – admittedly it's only testing the market, and therefore they may not be looking for profit on it – and cheap CD-ROM drives are available for a handful of hundred quid.

In fact, the biggest problem is – ironically – the very thing that CD-ROM supporters tout: the disk's capacity. A CD-ROM disk can store up to 682Mb, though for involved technical reasons the practical limit is 553Mb. That compares with the 360K-880K capacity of formatted ST and Amiga disks.

'All well and good,' you say, 'we can now keep over 1,000 ST games on a single CD-ROM drive, plug it in, and choose what we want when we want without looking for those boring old disks!'

Theoretically, yes (apart from the fact that there aren't 1,000 ST games in existence) – but think what it would cost.

Even given that you'd be paying for one comparatively cheap CD-ROM disk rather than 1,000 3.5-inchers, and even given that the software house's duplication and distribution costs would be lower (for the same reason), and *even* given that the retailer's profit margin would be smaller (for the same reason), I reckon you'd still be looking at a five-figure sum.

And that's because however much the physical costs were reduced, you'd still be looking at centuries of programming work – and programmers have to be paid (though some would tell you stories to the contrary).

Indeed, Jim Mackonochie, Chairman of Mirrorsoft and its sister CD-ROM company Pergamon Compact Solution, confirmed that the majority of their investment in a CD-ROM product comes not in duplication but in getting the data on there. (Usually that's not a program – CD-ROM is most suitable for storing huge amounts of words and pictures, and among Pergamon Compact Solution's most-prized achievements is a complete parts catalogue for Boeing 757s. I found it had great depth and some addictive qualities, but the graphics were minimal and gameplay uncompelling.)

And Mackonochie went on to say, at the launch of *Defender Of The Crown*, that a typical CD-ROM uses just 150Mb-250Mb. That proves the point: CD-ROM is a storage medium light years ahead of the kind of data most of us want to store.

We may be unhappy with our 360K ST drive, but consider how long it's taken programmers to make use of *that* with real code rather than graphics and sound; and then consider how much longer it would take them to reach the limits of, say, some PCs' 1.44Mb floppy drive; and you'll see that though CD-ROM may be a compact solution, it's not the only one.

Now the good news

Does this sound Luddite? I suppose so – at least it's heartening to see that companies are experimenting with CD-ROM, because it *is* useful in areas where huge amounts of unchanged data are necessary (eg libraries, databases of medical information, and so on).

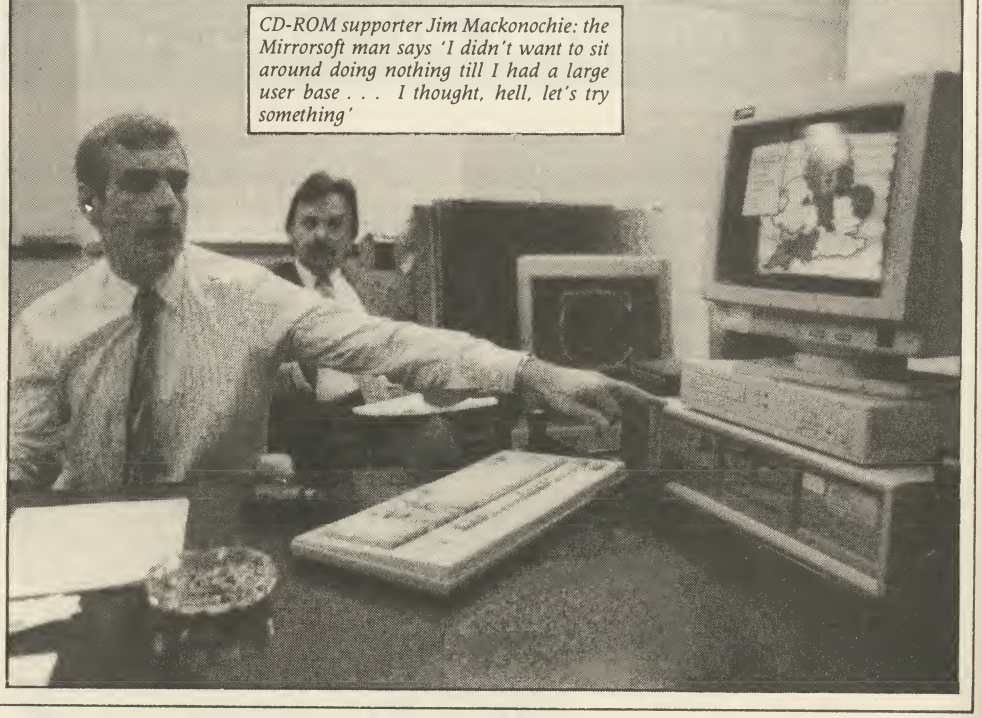
Also, without wishing to sound xenophobic (I'll leave that to the true Brits who raved on about Konix's Multi-System simply because it's not Japanese), it's industrially good for Europe to be at the forefront of an electronic technology for once. Chips are dominated by the Americans and Japanese and consumer electronics (stereos, videos etc) by the Japanese – but CD-ROM is partly the province of Philips, the Dutch firm, as well as Japan's Sony.

And, those benefits aside, there is a future for CD-ROM – except it won't be ROM any more, it'll be like a normal read/writable disk. Let's call it WRARAI ('write, read and rewrite ad infinitum', pronounced 'Rory').

The Amiga hard disk has only just arrived from Commodore (see this month's news). It'll be perfect for data-hungry graphics work – imagine how many bitmapped screens you can store and recall without having to change disks. So imagine the advantages of having a 682Mb hard disk on an Amiga, PC or ST: enough pictures could be stored to create complex animations.

Steve Jobs, one of the inventors of the Apple Mac, has seen the potential of WRARAI and put an erasable optical disk system in his recently-launched NeXT workstation (TGM**012**). Tellingly, however, he has since had to add a normal floppy drive – presumably because there's no incentive for software houses to bring out optical-disk products just for the NeXT.

Still, earlier this year, Sony released a standalone erasable optical disk system, and though it costs almost £8,000 for the simplest model, it's a welcome sign that the true potential of optical storage for computers – whether it's CD, Laservision, CDI or what have you – is at last being appreciated.



CD-ROM supporter Jim Mackonochie: the Mirrorsoft man says 'I didn't want to sit around doing nothing till I had a large user base . . . I thought, hell, let's try something'

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UNCLEMEL'S TRIVIA QUIZ

1) True or false? *Incredible Shrinking Sphere* from Electric Dreams was designed from the pattern on a carpet slipper.

2) What was in Santa's sack last Christmas for 14 employees at Amstrad HQ?

3) Which ex-Apple mogul is launching his NeXT computer: *a)* Steve Jobs, *b)* Gizza Jobs, *c)* Big Jobs?

4) True or false? Recorded sound was invented by Thomas Edison.

5) What is a PPC: *a)* TV network, *b)* a computer, *c)* a toilet voyeur?

6) Translate the following binary code into a base-ten number: 0001 0110 0111.

7) Why is Fujitsu opening a $100 million semiconductor plant in the UK?

8) How much import duty do foleign devirs of EEC pronk on cost of honoulabre Japanese daisy-reer plintel?

9) Which software houses are to be found in these weather reports: DAMN RAIN, FOGS AN' MIRE, R-R-ROOF MIST?

10) How many SAS men does it take to program a computer?

11) What have Chin Soo Ying and Kenji Urata got in common?

12) Who recorded the theme music for BBC TV's computer programme *Electric Avenue*?

13) Which drama does not feature robots: *a) Bladerunner, b) The Stepford Wives, c) Westworld, d) Neighbours*?

14) What have Monty Python, Microdeal and Paddy Ashdown got in common?

15) What was the heaviest charge clocked up on the 'banned' Chatterbox telephone network: £600, £6,000 or £60,000?

16) Who is responsible for Horrorsoft: *a)* Mr and Mrs Everiss, *b)* brewer's droop, *c)* Tynesoft?

17) What were the monsters in *Night Of The Lepus*, *The Stuff*, *Them*, *Island Of Terror*, *Teenagers From Outer Space*, and *Willard*?

18) What's chunky, sleek, and grey, and has 'Konix' stamped on its bottom?

19) What is the Mavica 2-inch 0.8Mb floppy disk used to store?

20) Which 'Alternative' cartoon hero celebrates his 60th birthday this year?

ANSWERS

1) True. (Would I make up such a banality?)
2) Nothing, but they did get the sack.
3) *a)* Steve Jobs.
4) False. Recorded sound was invented on April 18 1877 by Charles Cros, five months before Edison.
5) b) An Amstrad portable.
6) 167.
7) To beat the EEC trade restrictions that begin in 1992.
8) 25%
9) Mandarin, Infogrames, Mirrorsoft.
10) Two. One to program, the other to shoot any witnesses.
11) They were the first two humans to be murdered by computers.
12) Eddy Grant
13) *e)* None of the above.
14) They're all good for a laugh. (They also starred at the *Which Computer?* Show in February.)
15) £6,000.
16) *c)* Tynesoft.
17) Killer rabbits, crazyfoam, ants, jelly, a lobster, rats.
18) Wyn Holloway.
19) Photographs (50 erasable still video images).
20) Popeye.

FLYING WITH MICROPROSE COMP

Winner receives a PC with monitor and a copy of F19 Stealth Fighter. He is **Spencer Bromage** of Hereford.

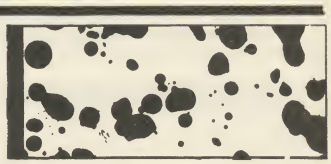
LED STORM HOTLINE COMP

50 winners to receive a copy of Led Storm. However, we only got 37 correct entries you bunch of thickies! The masterminds among you were:
Mark Hanson, Tyne & Wear. Richard Davis, London. N12. K Patton, Hemel Hempstead. Nigel Craft, Cambs, CB6 3HL. K R Lear, Northwich. Chris Erois, Co Antrim. Sinh Huynh, London SE15. Andrew Watling, Weybridge. Peter Littlewood, Swansea. Peter Wognum, Essex. Simon Wiles, Hants. John Shearing, Surrey. Andrew Taylor, Wiltshire. David Richards, Kiderminster. Anthony Underwood, Bolton. K A Siddiqui, London, W4. Jonathon O'Connor, East Sussex. Ryssell Bloch, Middlesex. William Dunstone, Co Durham. Michael Peel, Cheshire. Nicholas Head, Surrey. Tony Johnstone, Stockbridge. Ewan Gardiner, Aberdeenshire. Howard Thorpe, Southampton. Jonathan Grundy, Mid Glam. Stephen Middleton, Surrey. Nicholas Colledge, Nuneaton. Scott Lister, Tyne & Wear. L Loveday, W Glamorgan. William Collaghan, Tipton. Christopher Durrant, Kent. George Nicholson, London. R Singleton, Manchester. Ashley Beeching, Kent. Matthew Palmer, Middlesex. Mark Ratcliff, Nr Canterbury. Kriss McMullan, Suffolk.

NEXT MONTH IN The Games machine

- **So you want be a programmer? In that case you'd better not miss the Back Bytes guide to careers in computing. Let TGM put you on the road to success!**
- **TGM visits the Frankfurt music fair to report on the latest developments in the ST and PC department**
- **Jez San continues with 'project X'**
- **Fantastic screens from the New York computer graphics show**
- **The beginners guide to word processing and DTP**
- **Competitions**
- **Awards**
- **Totally brilliant games**

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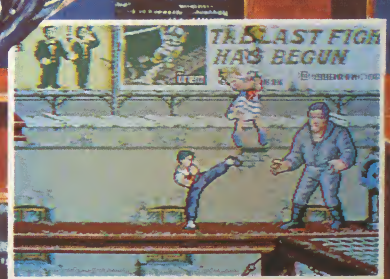
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Screen shots from arcade version.

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WHY FOFT MUS

Gremlin's quest for interstellar wealth – see page 4

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